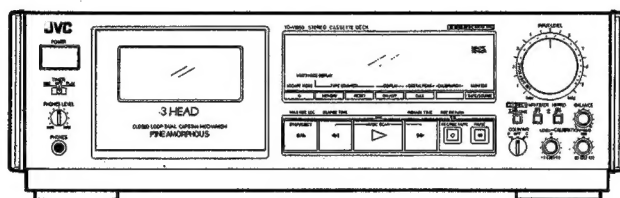


# JVC

## SERVICE MANUAL

### STEREO CASSETTE DECK

## TD-V1050 A/B/C/E/G/J



#### Area suffix

|   |       |                    |
|---|-------|--------------------|
| A | ..... | Australia          |
| B | ..... | UK                 |
| C | ..... | Canada             |
| E | ..... | Continental Europe |
| G | ..... | Germany            |
| J | ..... | U.S.A.             |

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## FEATURES

### 1. Pure and direct design with 3-head mechanism

- Closed-loop dual-capstan mechanism
- Pulse servo capstan D.D. (direct drive) system
- Record/playback head (Fine Amorphous) + Erase head (2-Gap Ferrite)
- PCOCC (Pure Copper by Ohno Continuous Casting) head winding wire for the superior signal transmission
- 2 pairs of line input jacks including CD direct input
- High bias frequency of 210 kHz for improved recording
- FET differential input, high-S/N headamplifier

### 2. Uni base minimizes vibration

- Cassette shell stabilizer minimizes vibrations.

### 3. Electrically driven cassette holder

### 4. Dolby<sup>®</sup> HX PRO headroom extension

### 5. Dolby B/C noise reduction systems

### 6. Calibration function for according to the characteristics of individual tapes

- Recording bias and level can be adjusted (built-in oscillator).

### 7. Multi-function buttons

- It is possible to find out the tape remaining time or to locate the recording start position.

### 8. Other features


- Music Scan
- "Under license from Staar S.A., Brussels Belgium"
- DISPLAY ON/OFF button
- 4 digit linear counter/digital peak level and level meter display
- Auto monitor
- Auto tape select mechanism
- Wireless remote control for operational convenience.

### 9. Timer start mechanism

### 10. DDRP (Dynamics Detection Recording Processor)

With the DDRP function, the recording level is adjusted automatically so that recording is performed in optimum condition.

### 11. COMPU LINK-1/SYNCHRO terminal

\* Dolby noise reduction and HX Pro headroom extension manufactured under license from Dolby Laboratories Licensing Corporation. HX Pro originated by Bang & Olufsen.  
"Dolby", the double-D symbol  and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.

# Safety Precautions

1. The design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer or responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the product have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by ( $\Delta$ ) on the schematic diagram and Parts List in Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the Parts List in Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard.

When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.

## 5. Leakage current check (Electrical shock hazard testing)

After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

Do not use a line isolation transformer during this check.

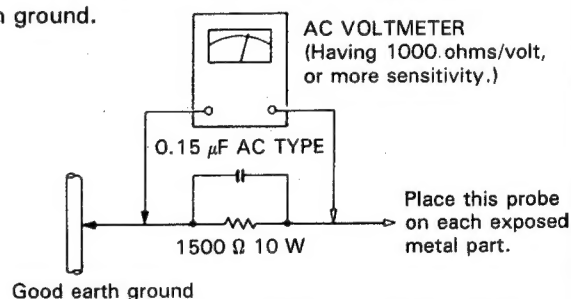
- Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5 mA AC (r.m.s.).
- Alternate check method

Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500  $\Omega$  10 W resistor paralleled by a 0.15  $\mu$ F AC-type capacitor between an exposed metal part and a known good earth ground.

Measure the AC voltage across the resistor with the AC voltmeter.

Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75 V AC (r.m.s.).

This corresponds to 0.5 mA AC (r.m.s.).



# Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

## SELECTING THE AC SUPPLY VOLTAGE

(A/B/E/G version only)

The C/J version is not provided with voltage selector.

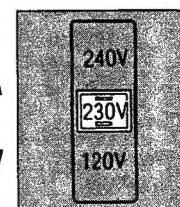
When this deck is used in an area where the supply voltage is different from the preset voltage, reset the voltage selector to the correct position.

Slide the voltage selector with a screwdriver so that the desired voltage marking is in the window.

### Caution:

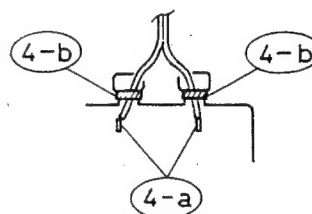
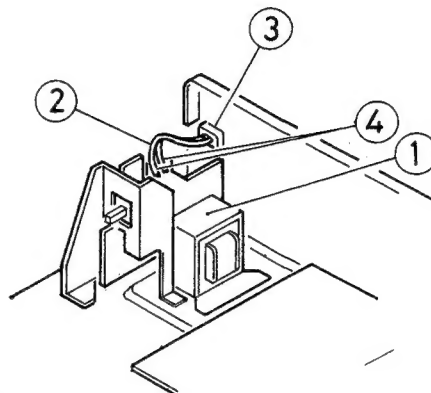
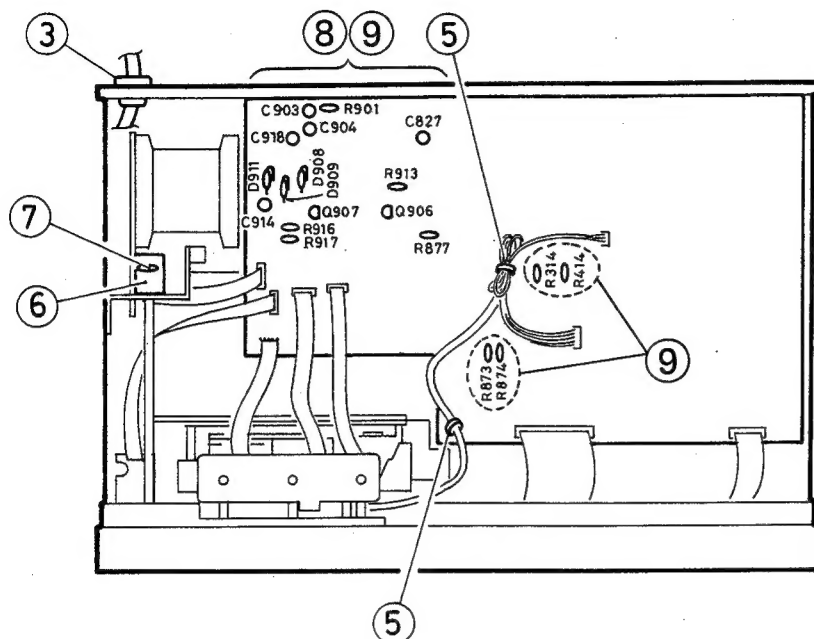
Disconnect supply cord before changing the voltage.

A/B/E/G Version



# ■ Safety Precautions about TD-V1050

## ■ Important Management Points Regarding Safety (Items Demanding special safety precautions)



1. Securely fix the power transformer while confirming its marking specified in the following.

J version : BD14A9-0017 (UL approved No.)

C version : VTP57A9-021B

B/E/A/G : VTP57H9-011B

2. Confirm the marking of the power cord and the plug.

| Suffix          | B           | E/G     | A       | C/J   |
|-----------------|-------------|---------|---------|-------|
| POWER CORD      | BASS BS6500 | ◁ VDE ▷ | LTSA-2F | SPT-2 |
| POWER CORD PLUG | —           | Ⓢ       | KP-560  | KP-10 |

3. Install the cord bushing by the specified tool while confirming the marking.

Bushion : NIFCO 2271

4. a) When installing the power cord, wind it around the terminal by the end before soldering.

b) Arrange the wires while binding them nearby the terminal.

5. When arranging every wire and cable, avoid the active power parts, mobiles, heat generating parts, sharpedged parts etc.

6. Confirmation of the marking "M7" of the power switch.

7. Marking of spark killer capacitor.

J:

Confirm B/E/G: RME265MB510.

8. For C903, C904, C914, C827, C918, make sure to use the specified part of the following rating.

C903/C904 : 3300  $\mu$ F/25 V

C914 : 330  $\mu$ F/25 V

C827 : 100  $\mu$ F/25 V

C918 : 2200  $\mu$ F/25 V

9. Since the following parts are heat generating ones, they must not contact with electrolytic capacitors, wires, etc.

• Parts in parentheses ( ) are inflammables. Make sure of their lift-up condition for this purpose.

• Parts in box   are out of JVC control.

(R901) (R913) (R917) (R314) (R414)

(R877) (R916)

R873 R874 Q906 Q907 D911 D908 R909

R902, R913, R301, R401, R831, R832, R808

R809, R816, R817

Q903, Q905

D901, D902, D903, D904, D912, D716

**SPECIFICATIONS**

(A/C/J-Version)

|   |   |
|---|---|
| Type  | : Stereo cassette deck  |
| Track system  | : 4-track, 2-channel  |
| Tape speed  | : 4.8cm/sec.<br>(1-7/8 inch/sec.)   |
| Frequency response                                    | : (-20 dB recording)<br>Type IV tape;<br>10 - 23,000 Hz<br>15 - 21,000 Hz ( $\pm 3$ dB)<br>Type II tape;<br>10 - 21,000 Hz<br>15 - 19,000 Hz ( $\pm 3$ dB)<br>Type I tape;<br>10 - 21,000 Hz<br>15 - 19,000 Hz ( $\pm 3$ dB)  |
| S/N ratio   | : 61 dB (S = 315 Hz, k3<br>= 3 %, N = A-weighted,<br>Type IV tape)<br>The S/N is improved<br>by about 15 dB at 500<br>Hz and by max. 20 dB<br>at 1 kHz ~ 10 kHz with<br>Dolby C NR on and<br>improved by 5 dB at 1<br>kHz and by 10 dB at<br>above 5 kHz with<br>DOLBY B NR on. |
| Improvement of<br>MOL                                 | : 4 dB at 10 kHz with<br>Dolby C NR on.   |
| Wow and flutter                                       | : 0.022 % (WRMS)  |
| Channel separation                                    | : 40 dB (1 kHz)   |
| Crosstalk   | : 65 dB (1 kHz)   |
| Harmonic distortion                                   | : k3; 0.6% (Type IV<br>tape, 315 Hz, 0 VU)  |
| Heads   | : Record<br>(amorphous) $\times 1$ ,<br>Playback<br>(amorphous) $\times 1$ ,<br>Erase (2-gap ferrite) $\times 1$  |
| Motors  | : Pulse servo DD motor<br>for capstan $\times 1$<br>DC motor for reel $\times 1$<br>DC motor for mecha-<br>nism drive $\times 1$  |
| Fast forward/Rewind<br>time                           | : Approx. 100 sec. with<br>C-60 cassette  |
| Input terminals<br>CD DIRECT<br>( $\times 1$ circuit) | : Min. Input level;<br>80 mV (0 VU)<br>Input impedance;<br>50 k $\Omega$  |
| LINE IN<br>( $\times 1$ circuit)                      | : Input sensitivity;<br>80 mV (0 VU)<br>Input impedance;<br>50 k $\Omega$   |
| Output terminals<br>LINE OUT<br>( $\times 1$ circuit) | : Output level; 300 mV<br>(0VU)<br>Output impedance;<br>5 k $\Omega$  |
| Headphones $\times 1$                                 | : Output level;<br>0 ~ 1 mW/8 $\Omega$ (0 VU)<br>Matching impedance<br>8 $\Omega$ ~ 1 k $\Omega$  |
| Other terminals                                       | : COMPU LINK-1/ SYN-<br>CHRO $\times 2$   |
| Power requirement<br>A version                        | : AC 240/230/120 V,<br>50/60 Hz   |
| C/J version   | : AC 120V, 60 Hz  |
| Power consumption                                     | : 21 W  |
| Dimensions<br>(W $\times$ H $\times$ D)               | : 452 $\times$ 143 $\times$ 335 mm<br>(17-13/16" $\times$ 5-11/16" $\times$<br>13-1/4")   |
| Weight  | : 7.7 kg (17.0 lbs.)  |
| Accessories   | : Pin plug cord $\times 2$<br>Remote cable $\times 1$<br>Remote control $\times 1$<br>Battery (AA/R6) $\times 2$  |

Design and specifications are subject to  
change without notice.

**SPECIFICATIONS**

(B-version)

|   |   |
|---|---|
| Type  | : Stereo cassette deck  |
| Track system  | : 4-track, 2-channel  |
| Tape speed  | : 4.8cm/sec.  |
| Frequency response                                    | : (-20 dB recording)<br>Type IV tape;<br>15 - 21,000 Hz ( $\pm 3$ dB)<br>Type II tape<br>15 - 19,000 Hz ( $\pm 3$ dB)<br>Type I tape<br>15 - 19,000 Hz ( $\pm 3$ dB)  |
| S/N ratio   | : 61 dB (S = 315 Hz, k3<br>= 3 %, N = A-weight-<br>ed, Type IV tape)<br>The S/N is improved<br>by about 15 dB at 500<br>Hz and by max. 20 dB<br>at 1 kHz ~ 10 kHz with<br>Dolby C NR on and<br>improved by 5 dB at 1<br>kHz and by 10 dB at<br>above 5 kHz with<br>DOLBY B NR on. |
| Improvement of<br>MOL                                 | : 4 dB at 10 kHz with<br>Dolby C NR on.   |
| Wow and flutter                                       | : $\pm 0.065$ % (DIN/IEC)   |
| Channel separation                                    | : 40 dB (1 kHz)   |
| Crosstalk   | : 65 dB (1 kHz)   |
| Harmonic distortion                                   | : k3; 0.6% (Type IV<br>tape, 1 kHz, 0 VU)   |
| Heads   | : Record<br>(amorphous) $\times 1$ ,<br>Playback<br>(amorphous) $\times 1$ ,<br>Erase (2-gap ferrite) $\times 1$  |
| Motors  | : Pulse servo direct drive<br>motor for capstan $\times 1$<br>DC motor for reel $\times 1$<br>DC motor for mecha-<br>nism drive $\times 1$  |
| Fast forward/Rewind<br>time                           | : Approx. 100 sec. with<br>C-60 cassette  |
| Input terminals<br>CD DIRECT<br>( $\times 1$ circuit) | : Input sensitivity;<br>80 mV (0 VU)<br>Input impedance;<br>50 k $\Omega$   |
| LINE IN<br>( $\times 1$ circuit)                      | : Input sensitivity;<br>80 mV (0 VU)<br>Input impedance;<br>50 k $\Omega$   |
| Output terminals<br>LINE OUT<br>( $\times 1$ circuit) | : Output level; 300 mV<br>(0VU)<br>Output impedance;<br>5 k $\Omega$  |
| PHONES $\times 1$                                     | : Output level;<br>0 ~ 1 mW/8 $\Omega$ (0 VU)<br>Matching impedance;<br>8 $\Omega$ ~ 1 k $\Omega$   |
| Other terminals                                       | : COMPU LINK-1/ SYN-<br>CHRO $\times 2$   |
| Power requirement                                     | : AC 240/230/120 V,<br>50/60 Hz   |
| Power consumption                                     | : 21 W  |
| Dimensions<br>(W $\times$ H $\times$ D)               | : 452 $\times$ 143 $\times$ 335 mm  |
| Weight  | : 7.7 kg  |
| Accessories   | : Pin plug cord $\times 2$<br>Remote cable $\times 1$<br>Remote control $\times 1$<br>Battery (AA/R6) $\times 2$  |

Design and specifications are subject to  
change without notice.

**TECHNISCHE DATEN**

(G-Version)

|  |  |
|--|--|
| Typ  | : Stereo-Cassettendeck   |
| Spursystem                                       | : 4-Spur, 2-Kanal  |
| Bandgeschwindigkeit                              | : 4,8 cm/Sek.  |
| Frequenzgang                                     | : (-20 dB-Aufnahme)<br>Type IV band;<br>10 – 23.000 Hz (DIN)<br>15 – 21.000 Hz ( $\pm 3$ dB)<br>Type II band;<br>10 – 21.000 Hz (DIN)<br>15 – 19.000 Hz ( $\pm 3$ dB)<br>Type I band;<br>10 – 21.000 Hz (DIN)<br>15 – 19.000 Hz ( $\pm 3$ dB)  |
| Signal-Rauschabstand                             | : 61 dB (S=315 Hz,<br>K <sub>3</sub> =3%, N=A-gewichtete,<br>Type IV band)<br>Der Signal-Rauschab-<br>stand ist um 15 dB bei<br>500 Hz und um max.<br>20 dB bei 1 kHz –<br>10 kHz mit einge-<br>schalteter Dolby C<br>NR verbessert und um<br>5 dB bei 1 kHz und um<br>10 dB über 5 kHz mit<br>eingeschalteter<br>Dolby B NR.<br>Verbesserung des<br>Höchstausgangs-<br>pegels : 4 dB bei 10 kHz mit<br>eingeschalteter<br>DOLBY C NR. |
| Gleichlaufschwankungen                           | : $\pm 0,065\%$ (DIN/IEC)  |
| Kanaltrennung                                    | : 40 dB (1 kHz)  |
| Übersprechdämpfung                               | : 65 dB (1 kHz)  |
| Klirrfaktor                                      | : K <sub>3</sub> ; 0,6%<br>(Type IV band, 315 Hz,<br>0 VU)   |
| Köpfe  | : Amorpher-Aufnahme-<br>kopf $\times 1$ ,<br>Amorpher-<br>Wiedergabekopf $\times 1$ ,<br>2-Spalt-ferrit-<br>Löschkopf $\times 1$   |
| Motoren  | : Impuls-Servo<br>Direktantriebs motor<br>für Capstan $\times 1$ ,<br>Gleichstrommotor für<br>Wickelspule $\times 1$<br>Gleichstrommotor für<br>Laufwerk $\times 1$  |
| Schnellvorlaufzeit/<br>Rückspulzeit              | : Ca. 100 Sekunden (C-<br>60 Cassette)   |
| Eingänge<br>CD DIRECT<br>( $\times 1$ Schaltung) | : Eingangspegel;<br>80 mV (0 VU)<br>Eingangsimpedanz; 50<br>k $\Omega$   |
| LINE IN<br>( $\times 1$ Schaltung)               | : Eingangspegel;<br>80 mV (0 VU)<br>Eingangsimpedanz;<br>50 k $\Omega$   |
| Ausgänge<br>LINE OUT<br>( $\times 1$ Schaltung)  | : Ausgangspegel; 300 mV<br>(0 VU)<br>Ausgangsimpedanz;<br>5 k $\Omega$   |
| PHONES $\times 1$                                | : Ausgangspegel;<br>0 ~ 1 mW/8 $\Omega$ (0 VU)<br>Geeignete Impedanz;<br>8 $\Omega$ – 1 k $\Omega$   |
| Weitere Anschlüsse                               | : COMPU LINK-1 /SYN-<br>CHRO $\times 2$  |
| Spannungsversorgung                              | : Netz 240/230/120 V<br>50/60 Hz   |
| Leistungsaufnahme                                | : 21 W   |
| Abmessungen<br>(B $\times$ H $\times$ T)         | : 452 $\times$ 143 $\times$ 335 mm   |
| Gewicht  | : 7,7 kg   |
| Zubehör  | : Cinchkabel.....2<br>Fernbedienkabel.....1<br>Fernbedienung.....1<br>Batterie (R6/AA).....2   |

Technische Änderungen vorbehalten !

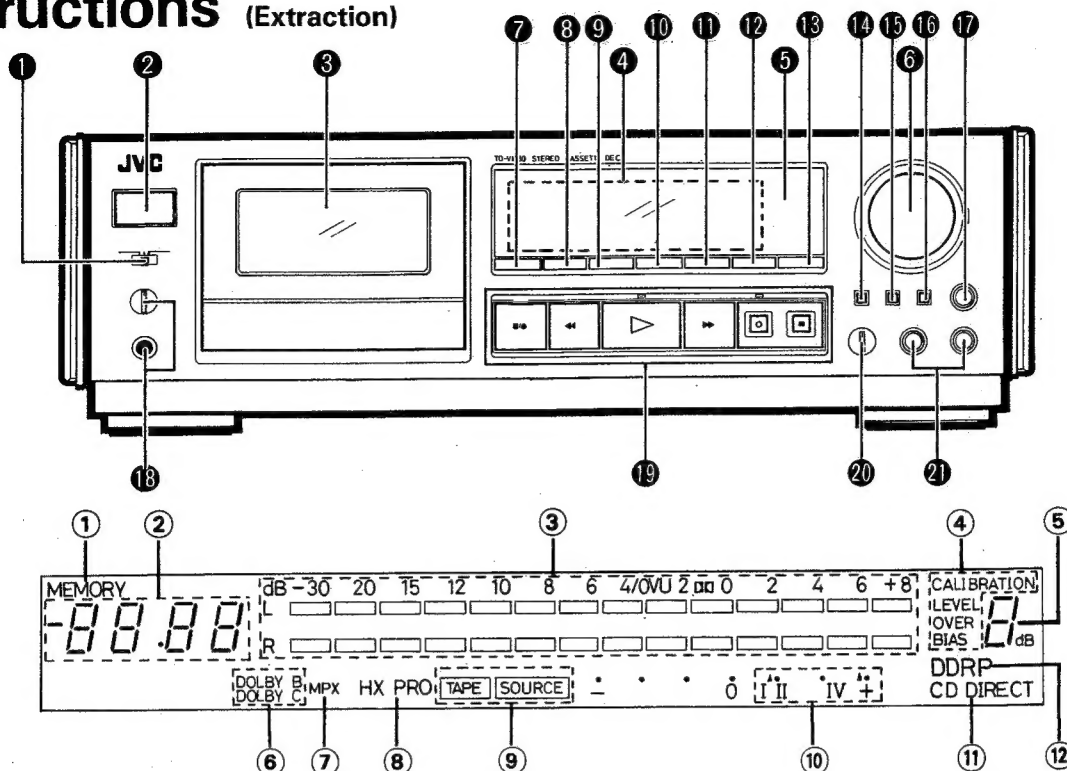
**CARACTERISTIQUES  
TECHNIQUES** (Version E)

|   |   |
|---|---|
| Type  | : Platine d'enregistre-<br>ment stéréo  |
| Système de pistes                                     | : 4 pistes, 2 canaux  |
| Vitesse de défilement                                 | : 4,8 cm/sec.   |
| Réponse en<br>fréquence                               | : (Enregistrement à - 20<br>dB)<br>Bande "Type IV";<br>10 à 23.000 Hz (DIN)<br>15 à 21.000 Hz ( $\pm 3$ dB)<br>Bande "Type II";<br>10 à 21.000 Hz (DIN)<br>15 à 19.000 Hz ( $\pm 3$ dB)<br>Bande "Type I";<br>10 à 21.000 Hz (DIN)<br>15 à 19.000 Hz ( $\pm 3$ dB)  |
| Rapport signal/Bruit                                  | : 61 dB (S=315 Hz, K <sub>3</sub><br>= 3%, N=A-ponderé,<br>Bande "Type IV")<br>Le rapport S/B est<br>amélioré de 15 dB<br>environ à 500 Hz et<br>de 20 dB maximum à<br>1 kHz-10 kHz avec le<br>Dolby C NR en circuit,<br>et amélioré de 5 dB à<br>1 kHz et 10 dB envi-<br>ron à 5 kHz avec le<br>Dolby B NR en circuit. |
| Amélioration du<br>niveau de sortie max               | : 4 dB à 10 kHz avec le<br>Dolby C NR en circuit.   |
| Pleurage et scintille-<br>ment                        | : $\pm 0,065\%$ (DIN/IEC)   |
| Séparation des canaux                                 | : 40 dB (1 kHz)   |
| Diaphonie   | : 65 dB (1 kHz)   |
| Distorsion harmonique                                 | : K <sub>3</sub> ; 0,6 % (bande<br>"Type IV", 315 Hz<br>0 VU)   |
| Têtes   | : Enregistrement<br>(amorphe) $\times 1$ ,<br>Lecture<br>(amorphe) $\times 1$ ,<br>Effacement<br>(ferrite 2 entrefers) $\times 1$   |
| Moteurs   | : Moteur à commande<br>directe d'asservisse-<br>ment par impulsions<br>$\times 1$<br>Moteur CC pour bobine<br>$\times 1$<br>Moteur CC pour l'en-<br>trainement mécanique<br>$\times 1$  |
| Temps d'avance<br>rapide/Temps de<br>réembobinage     | : Environ 100 secondes,<br>avec une cassette C-60   |
| Bornes d'entrée<br>CD DIRECT<br>( $\times 1$ circuit) | : Sensibilité d'entrée;<br>80 mV (0 VU)<br>Impédance d'entrée;<br>50 k $\Omega$   |
| LINE IN<br>( $\times 1$ circuit)                      | : Sensibilité d'entrée;<br>80 mV (0 VU)<br>Impédance d'entrée;<br>50 k $\Omega$   |
| Borne de sortie<br>LINE OUT<br>( $\times 1$ circuit)  | : Niveau de sortie; 300<br>mV (0 VU)<br>Impédance de sortie;<br>5 k $\Omega$  |
| PHONES $\times 1$                                     | : Niveau de sortie;<br>0 ~ 1 mW/8 $\Omega$ (0 VU)<br>Impédance caractéris-<br>tique: 8 $\Omega$ – 1 k $\Omega$  |
| Autres prises   | : COMPU LINK-1/<br>SYNCHRO $\times 2$   |
| Alimentation  | : 240/230/120 V CA,<br>50/60 Hz   |
| Consommation  | : 21 W  |
| Dimensions<br>(L $\times$ H $\times$ P)               | : 452 $\times$ 143 $\times$ 335 mm  |
| Poids   | : 7,7 kg  |

|             |                         |
|-------------|-------------------------|
| Accessoires | : Câble à broches.....2 |
|             | Câble de                |
|             | télécommande.....1      |
|             | Télécommande.....1      |
|             | Pile (R6/AA).....2      |

Présentation et caractéristiques modifiables  
sans préavis

# Instructions (Extraction)



## NAMES OF PARTS AND THEIR FUNCTIONS

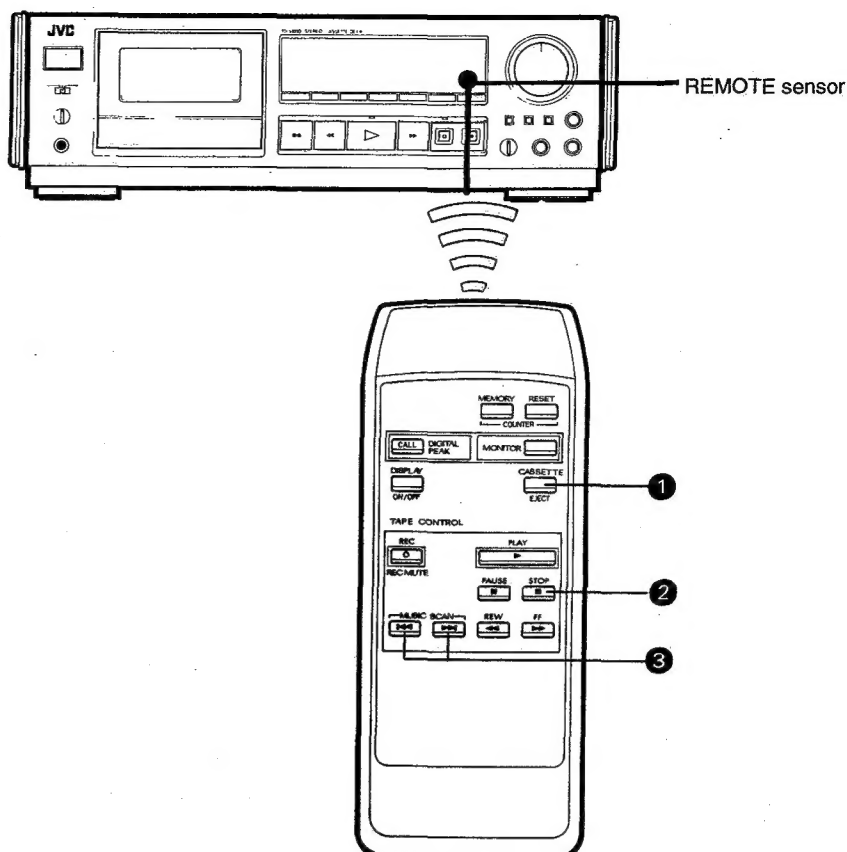
- 1 TIMER switch**  
When an optional timer is used, recording and playback can be performed at any desired time.
- 2 POWER switch**
- 3 Cassette holder**
- 4 MULTI MODE display**
  - 1 MEMORY indicator**
  - 2 Tape counter indicator**
  - 3 PEAK LEVEL METER**  
0 dB: IEC (DIN) STANDARD LEVEL (250 nWb/m)  
0 VU: EIAJ STANDARD LEVEL (160 nWb/m)  
□: DOLBY NR STANDARD LEVEL
  - 4 CALIBRATION indicator**
  - 5 Digital peak indicator**
  - 6 DOLBY NR mode indicator**
  - 7 MPX filter indicator**
  - 8 HX PRO indicator**
  - 9 Monitor indicator**
  - 10 Tape types and recording guide indicators**
  - 11 CD DIRECT input indicator**
  - 12 DDRP indicator**
- 5 REMOTE SENSOR**
- 6 INPUT LEVEL control**  
Adjust the recording level with this control.
- 7 TIME/LOCATE button**  
It is able to find the tape remaining time, locate the start of a recording, and do other things, using together with cassette operation buttons.
- 8 MEMORY button**
- 9 RESET button**  
Press to reset the tape counter to "0.00".
- 10 DISPLAY ON/OFF button**
- 11 CALL button (Digital peak)**  
Press to call up the stored (memorized) maximum value or to reset the memory.
- 12 CALIBRATION button**
- 13 MONITOR button**  
When this button is pressed, it changes between source monitoring and tape monitoring.
- 14 CD DIRECT switch**  
ON: Press this switch to set to ON when recording directly from a CD player.  
OFF/LINE: Press this switch to set to OFF/LINE when recording from a stereo amplifier.
- 15 MPX FILTER switch**  
When an FM stereo broadcast is to be recorded using Dolby NR, set this to ON to prevent the Dolby NR circuit from malfunctioning (otherwise the sound quality could deteriorate.)
- 16 Dolby HX PRO switch**  
Used to record sources which contain many high frequency components.
- 17 BALANCE control**  
Adjusts the balance between the signals input via the left and right LINE IN jacks.
- 18 PHONES jack and PHONES LEVEL control**  
Connect headphones (with an impedance of 8 Ω to 1 kΩ).
- 19 Cassette operation buttons and lamps (> and O buttons)**
  - / ▲ STOP/EJECT: Press to stop the tape. Pressing this button after the tape stops, opens the cassette holder.
  - ◀ (rewind) button: Press to rewind the tape.
  - ▷ (play) : Press to start recording or playback.  
Press this button with either the ◀◀ or ▶▶ button for music scanning.
  - ▶▶ (fast forward) button: Press to fast forward the tape.
  - REC/REC MUTE: Press the ▷ (play) button while pressing this button to start recording, and press to leave an appropriate non-recorded section.
  - PAUSE : Press to stop the tape temporarily during recording and playback.  
Press the ▷ (play) button to release the pause mode.  
When pressed together with the ○ REC/REC MUTE button before recording, the unit will enter the record-pause mode.
- 20 DOLBY NR switch**  
Set to B or C for recording using the Dolby NR system or for playing back a tape that was recorded using the Dolby NR system.  
Set to OFF when the Dolby NR system is not used.
- 21 CALIBRATION controls**  
To adjust the recording bias and sensitivity according to the tape to be used. If adjustment is not performed, set to the center position.



## REMOTE CONTROL OPERATIONS

### Correct use of the remote control

- Press the button (s) while pointing the top of the remote control unit at the remote sensor on the front panel of the main unit.
- The operable range is about 7 meters (approx. 23 ft) away from the main unit. If operated at an angle, the range will be shorter.
- Do not allow direct sunlight or strong light from a fluorescent light, etc. to strike the remote sensor, do not place anything between the remote control and remote sensor. (The remote control may not work.)



### 1 CASSETTE EJECT button

Press this button to open and close the cassette holder. During recording, the button does not work.

### 2 ■ STOP button

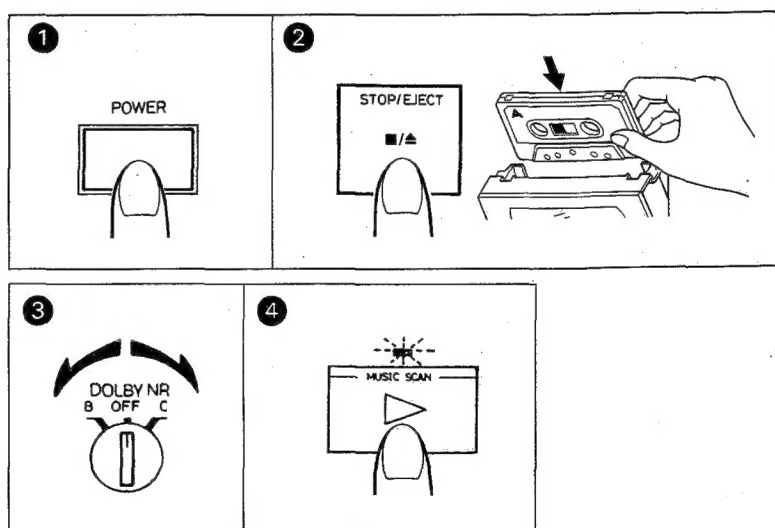
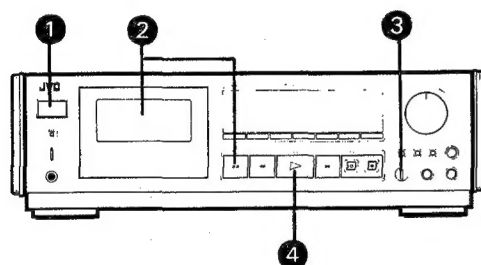
Press this button to stop the tape. (The cassette holder cannot be opened.)

### 3 ◀▶ MUSIC SCAN buttons

During music scanning, press this button to find the start of a piece of music.

\* Other control buttons have the same functions as those on the front panel of the main unit.

## PLAYBACK



Operate in the order of the numbers in the illustration.

- 1 Press the POWER switch to set to ON (▲).
- 2 Load a prerecorded cassette.
- 3 Set the DOLBY NR switch to the same position as when the tape was recorded.
- 4 Press the ▷ (play) button to start playback.

- It changes to the tape monitor mode automatically and "TAPE" will appear on the display.
- To stop playing back midway.....Press the ■ / ▲ STOP/EJECT button.

### Automatic slack tape removal operation:

When a cassette is inserted, slack tape will be taken up automatically. This will also happen if the power is switched on with a tape loaded.

**Tape counter display**

When the tape runs, the counter functions as 4 digit linear tape counter. With a C-46L, C-60, or C-90 cassette, the approximate running time is displayed in minutes and seconds (count down function included). There may be up to a one-minute discrepancy between the actual running time and the displayed time. With a C-30, C-46, or C-80 cassette, the discrepancy may be greater. And even if used cassettes having the same playing time, different times may be displayed because of different tape thicknesses.

**Music scan**

The music scan mechanism functions by detecting non-recorded sections between tunes. The lengths of non-recorded sections should be more than 4-5 sec for Music Scan to be effective.

1. Press the ▷ (play) and ◀◀ (or ▶▶) buttons simultaneously.
  - During scanning, the lamp of ▷ (play) button flashes rapidly.
2. When a non-recorded section is detected, playback starts automatically.

**Notes:**

In the following cases, the mechanism may not operate correctly. This is not a malfunction; use the mechanism according to the type of program.

- Tapes with tunes having long pianissimo passages (very quiet parts) or non-recorded portions during tunes
- Tapes with short non-recorded sections
- Tape with noise or hum between tunes

**Memory button**

Press the MEMORY button at the point to which you want the tape to be rewound and from which you want to listen to during recording or playback.

The tape stops automatically at the point where the MEMORY button is pressed in either the fast forward or rewind mode.

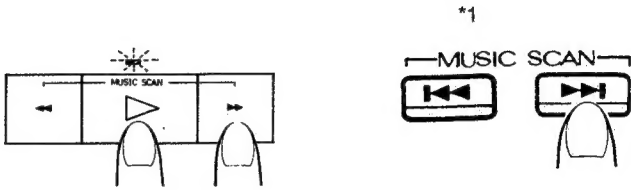
- The point where the MEMORY button is pressed is stored during any mode (recording, playback or stop), but the memory function (automatic stop) operates only in the fast forward or rewind mode.
- If pressing the memory button again, the memory will be cleared. It will also be cleared if pressed the RESET button and reset the counter to "0.00".

**To set the counter to "0.00".**

Press the RESET button. (The counter is also reset when the power is switched off and on again.)

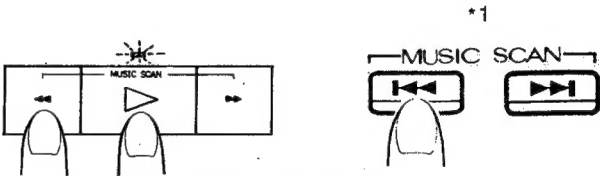
To clear indication in the DISPLAY window... press the DISPLAY ON/OFF button, and the digital noise from the DISPLAY window is reduced. If the button is pressed again, the indication reappears.

- Press the DISPLAY ON/OFF button to turn off the display. Although the display will come back on if the mode changes to Fast Forward, Rewind, Pause, or Stop (except for Recording and Playback).
- Even when the display is turned off, the tape counter, meter and digital peak indicator will continue to operate. It is also possible to check these contents after recording or playback have ended.

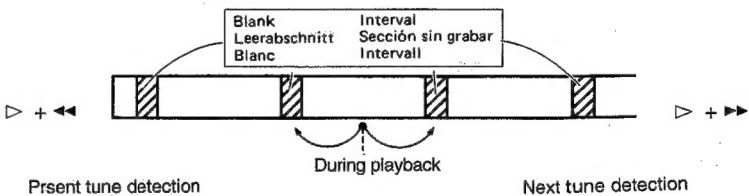


- Next tune detection (Fast forward scanning)

\*1 Using the remote control.



- Present tune detection (Rewind scanning)



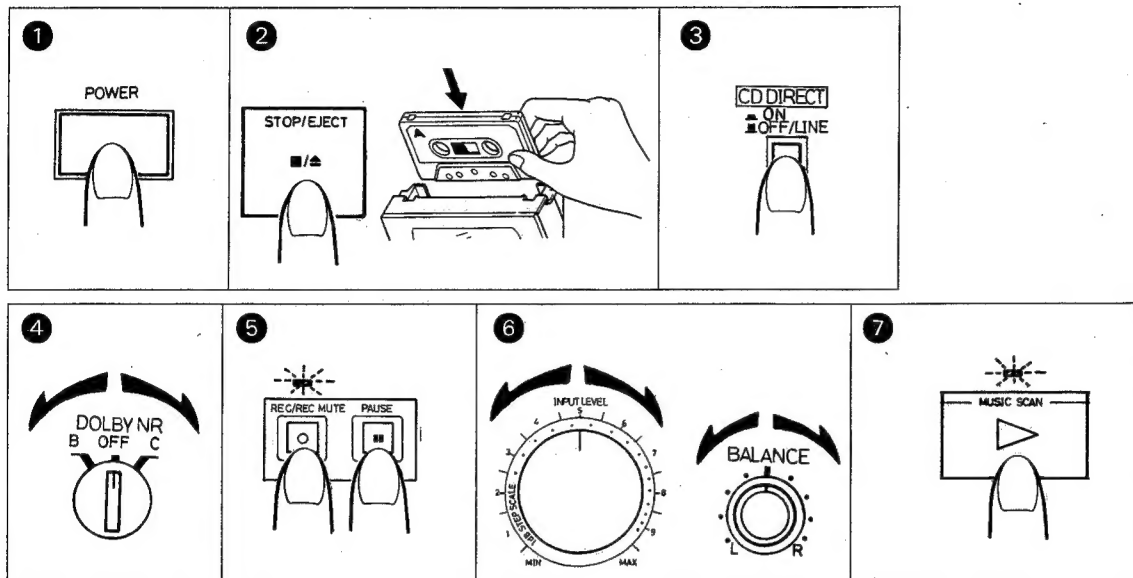
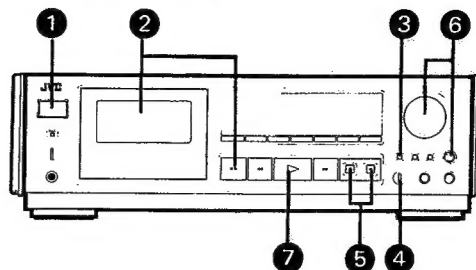


## RECORDING

Operate in the order of the numbers in the illustration.

- Set the **TIMER** switch to OFF before switching the power on.
- Make sure the safety tab of the cassette has not been broken off.

### • Manual recording



- 1 Press the **POWER** switch to set to ON ( — ).
- 2 Load a cassette for recording.
- 3 Select the recording input.
- 4 Set the **DOLBY NR** switch as required.
- 5 Press the **REC/REC MUTE** button and **PAUSE** button at the same time (record-pause mode). The **REC** lamp lights.
- 6 Adjust the recording level and balance. (See page 33.)  
The **BALANCE** control only works with line input.

- 7 Press the **▷** (play) button to start recording.
  - It changes to the tape monitor mode automatically and "TAPE" will appear on the display.

### WARNING

It may be unlawful to record or playback copyrighted material without the consent of the copyright owner.

### DDRP (Dynamics Detection Recording Processor) recording

- DDRP recording is performed with suitable JVC CD players and the recording level adjustment is performed automatically.
- Since recording level adjustment is performed automatically for different types of tape (normal, CrO<sub>2</sub> and metal), the adjustment of **INPUT LEVEL** and **BALANCE** controls are not required.
- Read the instruction book of your CD player carefully.

### DOLBY NR and DOLBY HX-PRO switches

#### Dolby NR System

To reduce the hiss inherent in tape recording, use the Dolby NR System when making recordings. When listening to a tape recorded with the Dolby NR System, set the **DOLBY NR** switch to B or C according to the system selected in the recording mode.

#### Note:

The sound quality will change if the positions of the **DOLBY NR** switch are different in recording and playback.

### Dolby HX PRO headroom extension

When a source which contains many high-frequency components is recorded, these high-frequency signals have the same function as bias and therefore, the effective bias current changes. This will result in phenomena such as changes in the level of low-frequency signal and subsequent distortion and reduction of the high-frequency saturation level.

Dolby HX PRO headroom extension system controls the bias current so that the effective bias is constant even when there are fluctuations in the high-frequency components of the input signal.

This greatly improves the high-frequency saturation level while reducing the low-frequency signal level variations and distortion.

- The dynamic sound recorded with this system sounds the same even when the tape is played back in a deck that does not have Dolby HX PRO.
- This system automatically works when in recording; however, Dolby HX PRO is not a noise reduction system.

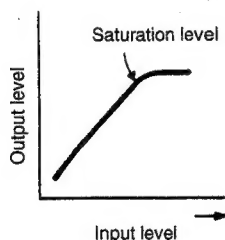
### DIGITAL PEAK indicator and its use in recording level adjustment

It is best to adjust so that the maximum sound level of the source to be recorded reaches the very limit of the saturation level of the tape to be used.

- When the recording level is too low, the hiss noise inherent in the tape will be conspicuous.
- When the recording level is too high, exceeding the saturation level, the recording will contain cracking noise and will be distorted.

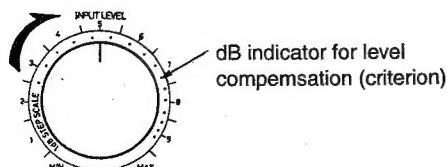
### Saturation level means:

When the recording input is increased gradually, the output increases proportionally. However, once it reaches a certain level, the output cannot increase any further. Moreover, the output will be distorted if the input is increased beyond this point. The level at which this occurs is called the tape's "saturation level".



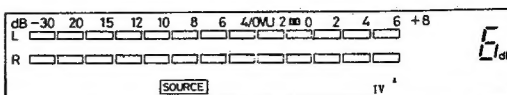
### How to adjust the recording level

- ① Set to the source mode (record-pause).
- ② Adjust the recording level using the INPUT LEVEL control.



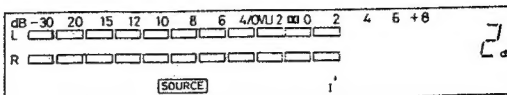
### With metal tape

Because of metal tape's higher saturation level, it is OK that "+ 6" lights occasionally.



### With normal or chrome tape

It is OK that "+ 2" lights occasionally.



### Digital Peak Indicator

This is a digital display that shows the recording/playback level and is interlocked with the peak level meter under the control of the meter microcomputer. A maximum peak level memory function is provided so that the peak level can be checked after as well as during recording.

For 0 dB and under:

0 dB

For +8 dB and over:

OVER 8 dB

### Calling up the maximum level and resetting the memory

When the digital peak "CALL" button is pressed once, the peak level held in memory flickers in the display for approximately 5 seconds. If the CALL button is pressed again while the peak value is displayed, the previous contents of memory will be cleared and this newly input maximum level will be held in memory as the peak level.

In addition, the digital peak function holds the level of whichever of the left or right channels is the higher and displays it.

### Calibration operation

There are various types of cassette tapes, and their characteristics differ slightly even when they are of the same type.

Generally, the bias current and equalization characteristics suitable for the type of tape being used can be obtained by the Auto Tape Select system.

However, to optimize the response of the tape to be used, it is better to adjust the recording bias so that distortion is minimized and the frequency characteristics are as flat as possible.

When recording using Dolby NR, the recording and playback levels should be matched to achieve the best Dolby NR effect.



### How to adjust

Adjust the bias current to compensate for the tape sensitivity while recording the test tone.

1. Press the  $\triangleright$  button while pressing the CALIBRATION button.

The meter changes to calibration mode and the test tone recorded.

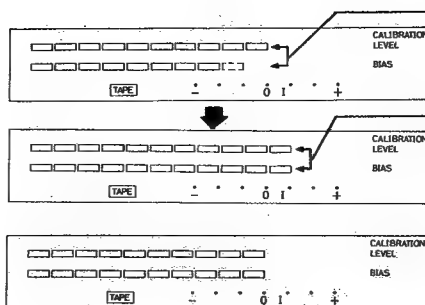
2. Adjust the BIAS control so that the upper and lower meters show the same level.

3. Adjust the level control that the upper and lower meters show "0".

4. Press the  $\blacksquare/\blacktriangle$  STOP/EJECT button to stop the tape.

The level meter works when the  $\blacksquare/\blacktriangle$  STOP/EJECT button is pressed. This is not a malfunction.

The optimum bias is set and the tape sensitivity is compensated for by the above procedures. To start recording, rewind the tape and erase the test tone.

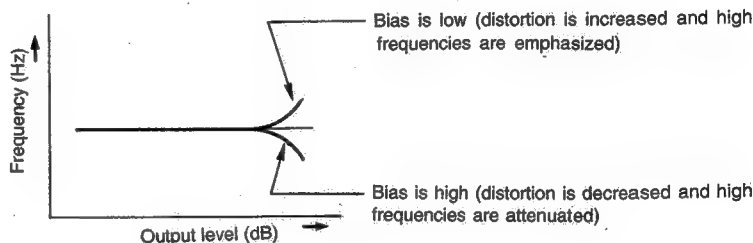


Meter for the calibration

Adjust to give the same level on the upper and lower meters.

When the bias is low (80% position) or high (120% position), the frequency response is as shown in the right diagram.  
Wenn die Vormagnetisierung niedrig (80%-Position) oder hoch (120%-

Position) ist, ist der Frequenzgang wie im Diagramm rechts dargestellt.  
Quand la polarisation est basse (position 80%) ou haute (position 120%), la réponse de fréquence est comme indiqué sur le diagramme de la droite.



### Notes:

- When using metal tape, the change in the frequency characteristic when the bias control is adjusted is small compared with the change when using normal- or high-position tape. The optimum bias may not be obtained within adjusting range ( $\pm 20\%$ ) of this deck due to tape characteristic difference.
- During calibration, monitoring is impossible regardless of whether the monitor mode is set to "tape" or "source".
- The tape cannot be returned to the record start position by pressing the TIME/LOCATE button.

### Erasing

When recording on a prerecorded tape, the previous recording is automatically erased and only the new program is recorded on the tape. To erase a tape without making a new recording... Follow the section "RECORDING" but in step ⑤, set the INPUT LEVEL control to MIN.

### Automatic record muting

This facility is used to eliminate undesired sections and leave an appropriate non-recorded section.

#### A. To leave non-recorded sections of about 4-5 seconds automatically

- ① When the undesired section comes during recording, press the  $\bigcirc$  REC/REC MUTE button and release it.
- ② The REC button lamp flashes and non-recorded section is made.  
About 4 - 5 seconds later, the tape automatically stops, and the unit enters the record-pause mode.
- ③ Press the  $\triangleright$  (play) button to restart recording.

#### B. To leave non-recorded sections of more than 4-5 seconds

- ① Keep the  $\bigcirc$  REC/REC MUTE button pressed continuously as long as you want to make a non-recorded section. By releasing the finger from the button after the above operation, the unit enters the record-pause mode.
- ② Press the  $\triangleright$  (play) button to restart recording.

#### C. To leave non-recorded section of less than 4 seconds

- When the undesired section comes during recording... After the  $\bigcirc$  REC/REC MUTE button is pressed, press the PLAY button before the unit enters the pause mode to start recording again, or press the  $\blacksquare$  PAUSE button to enter the record-pause mode.
- The PEAK LEVEL INDICATOR lights even during record muting according to the input level which can be heard from the speakers or headphones so that recording can be resumed at the exact point on the tape.

#### Automatic record muting using the remote control unit

When the  $\bigcirc$  REC/REC MUTE button is pressed a non-recorded section of approx. 4 seconds is automatically left and the deck enters the record-pause mode. Even if you continue to press the button, the non-recorded section will not be longer than 4 seconds.

### MONITOR button

Since the unit is a three-head deck with separate record, play and erase heads, the sound from the source can easily be compared with that recorded on the tape by switching this button.

#### A. Source monitoring

Press the MONITOR button to indicate "SOURCE" in the display to monitor the sound from the source. The PEAK LEVEL METER and DIGITAL PEAK indicators show the level of the input signal; adjust the recording level while monitoring the source.

#### B. Tape monitoring

Press the MONITOR button to indicate "TAPE" in the display to monitor the signal picked up by the play head after it has been recorded on the tape. In this way, you can check whether it has deteriorated because of dirt on the head, etc.

This unit automatically enters the source monitor mode when the record-pause mode is engaged, and the tape monitor mode when the record or playback mode is engaged.

### CD DIRECT input

When a CD player or other component is connected to the CD DIRECT terminals as shown in "CONNECTIONS" on page 11, a direct signal will be input without passing through the stereo amplifier.

Also, since the BALANCE control of the deck is no longer concerned, the signal path will be shortened and sound quality can be improved. To record with these sources, set the CD DIRECT switch according to the input.

# 1 Location of Main Parts

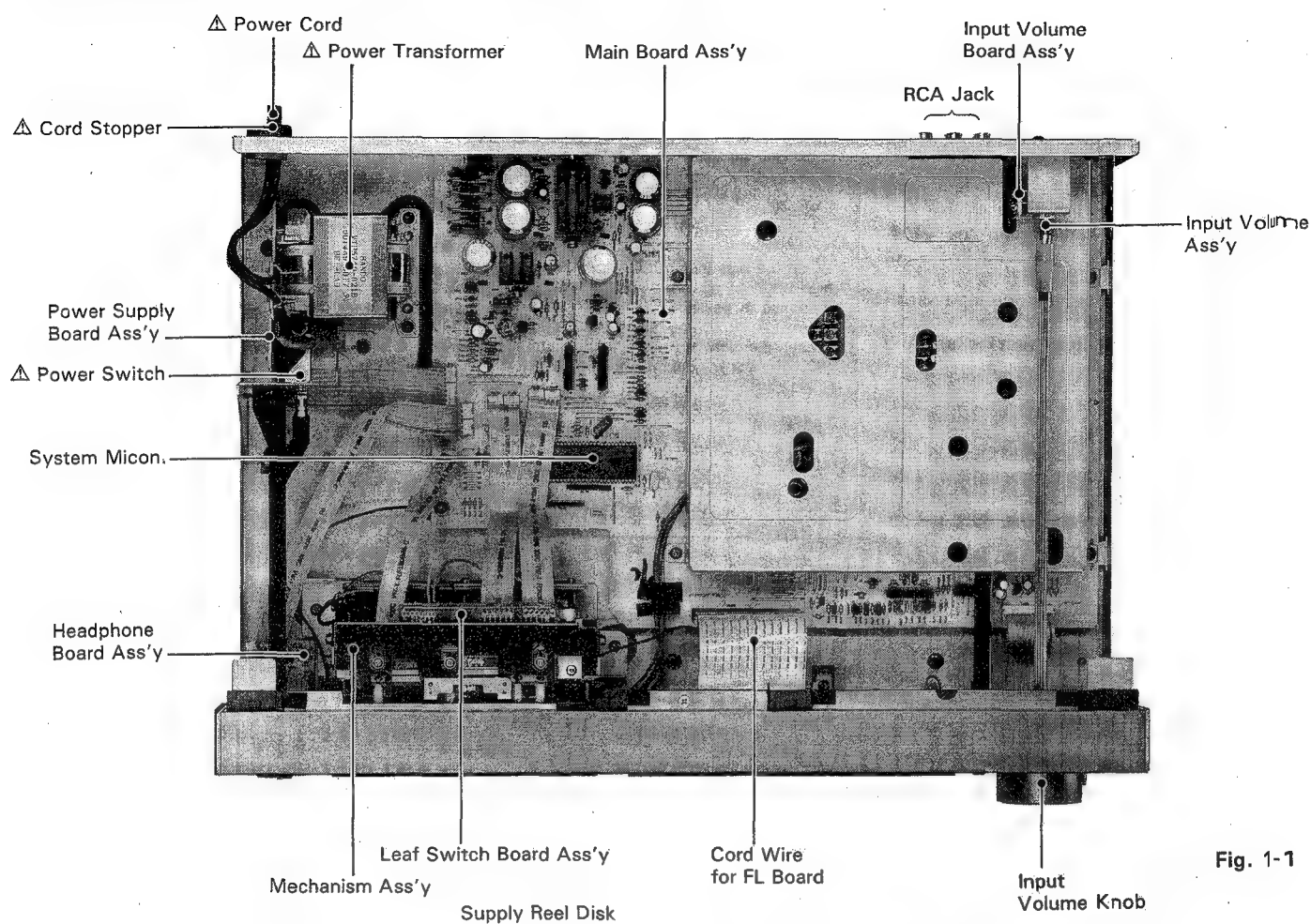


Fig. 1-1

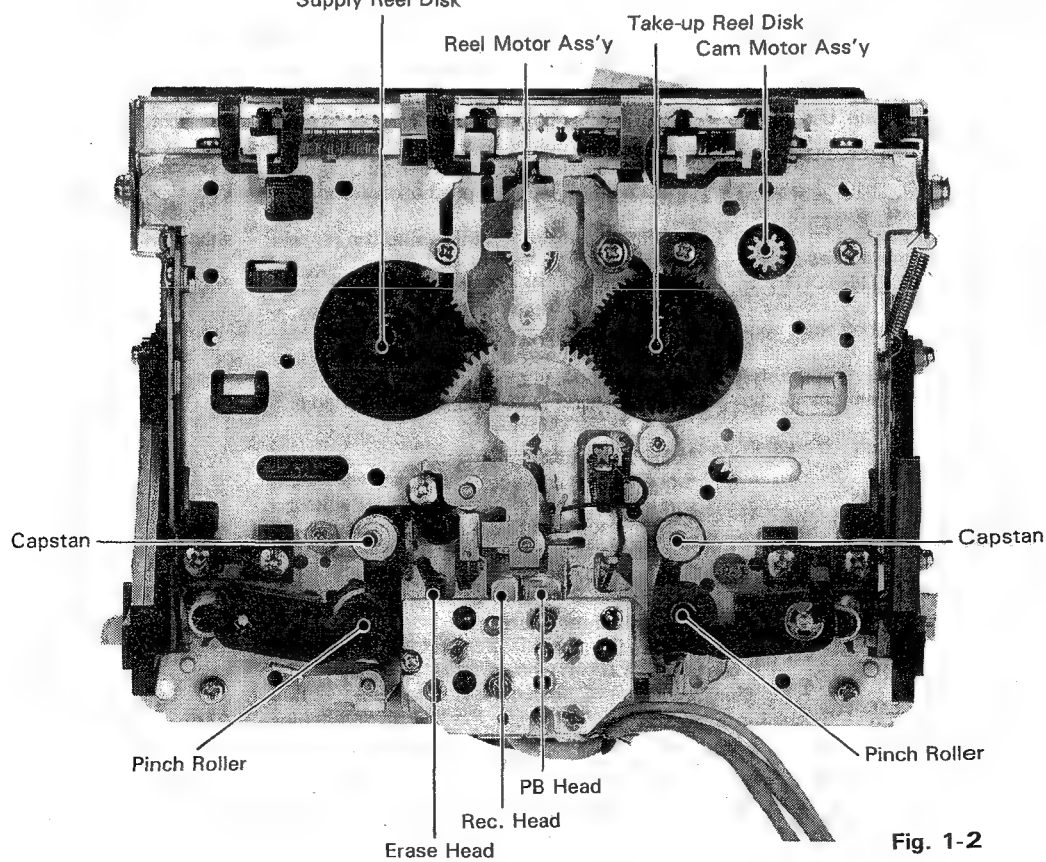


Fig. 1-2

## 2 Removal of Main Parts

### < Enclosure Section >

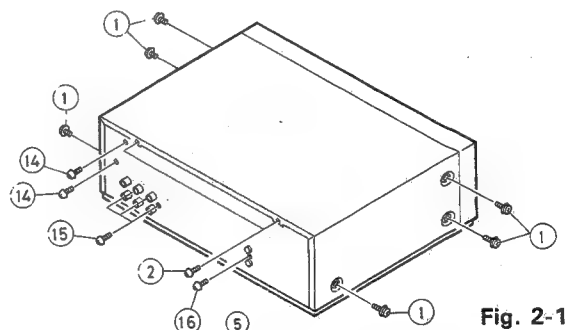
| Assembly parts for order of removal | Assembly part to be removed | Top cover | Cassette door lid | Front plate and fitting | Front panel assembly | Volume PC board assembly (Balance Calibration) | Mechanism assembly (Remove back light solder) | FL PC board assembly | Headphone PC board assembly | Headphone volume assembly | Timer switch PC board assembly | Input volume assembly | Main PC board shield case | CD direct switch bar | Main PC board assembly |
|-------------------------------------|-----------------------------|-----------|-------------------|-------------------------|----------------------|--|---|----------------------|-----------------------------|---------------------------|--------------------------------|-----------------------|---------------------------|----------------------|------------------------|
| Cassette lid                        | 1                           |           |                   |                         |                      |  |   |                      |                             |                           |                                |                       |                           |                      |                        |
| Front panel assembly                |                             | 1         | 2                 |                         | 3                    |  |   |                      |                             |                           |                                |                       |                           |                      |                        |
| Volume PC board assembly            |                             | 1         |                   | 2                       |                      | 3  |   |                      |                             |                           |                                |                       |                           |                      |                        |
| FL PC board assembly                |                             | 1         |                   |                         |                      |  |   | 3                    |                             |                           |                                |                       | 2                         |                      |                        |
| Headphone volume PC board assembly  |                             | 1         |                   | 2                       |                      |  |   |                      |                             | 3                         |                                |                       |                           |                      |                        |
| Timer switch PC board assembly      |                             | 1         |                   | 2                       |                      |  |   |                      |                             | 3                         | 4                              |                       |                           |                      |                        |
| Headphone PC board assembly         |                             | 1         |                   | 2                       |                      |  |   |                      | 3                           |                           |                                |                       |                           |                      |                        |
| Mechanism assembly                  |                             | 1         |                   |                         |                      |  | 2   |                      |                             |                           |                                |                       |                           |                      |                        |
| Main PC board assembly              |                             | 1         |                   |                         | 2                    |  |   |                      |                             |                           |                                | 4                     | 3                         | 5                    | 6                      |
| Input level volume assembly         |                             | 1         |                   |                         |                      |  |   |                      |                             |                           |                                | 2                     |                           |                      |                        |

\* Remove in the order of the numbers of the assembly parts for removal

### External Parts

#### ■ Top Cover

1. Remove the six screws (1) on the left and right sides and the two attachment screws (2) on the back side.
2. Remove the top cover by pushing towards back.



#### ■ Front Cover and Fitting

1. Remove the screw (3) retaining the center of the front plate.
2. Remove the three screws (4) retaining the bottom plate fitting on the bottom (see Figure 2-3).
3. Press the two points (A) on the mold section to remove the catches on the inner side of the front cover and then remove the front cover towards you.
4. Pull the fitting toward the front and remove.

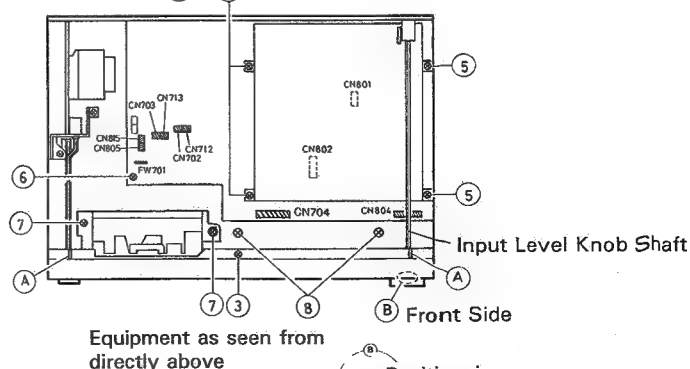
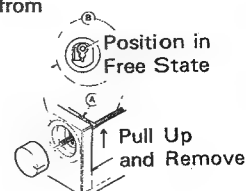


Fig. 2-2



■ **Cassette Door Cover (Lid)**

1. Turn the power ON and press the eject button to open the cassette door.  
Pull the cover up to remove.

**Assembly Parts**

■ **When removing as the front panel assembly (with mechanism)**

1. Remove the top cover of the external parts. Remove the front plate to prevent scratching.
2. Remove the cassette cover.
3. Pull out the input level knob. Pull the shaft knob section upward to set it in the free position (see Figure 2-2).
4. Remove the four screws (5) retaining the PC board shield case (see Figure 2-2).
5. Remove the wire from the main PC board (see Figure 2-2).
  - a) Remove CN804 of the Dolby switch/calibration volume.
  - b) Remove the wires CN802, CN801 for record/playback and erasing heads.
  - c) Remove CN704 going to the FL PC board.
  - d) Remove CN703, CN713, CN702 and CN712 going to the leaf switch PC board.
  - e) Remove CN805 and CN815 going to the headphone PC board.
6. Remove the cam switch wire (FW701) from the mechanism PC board connector.
7. Remove the screw (6) retaining the headphone PC board grounding wire.
8. Remove the two screws (7) retaining the mechanism assembly on the chassis.
9. Remove the two screws (8) retaining the front panel and chassis on the bottom plate.

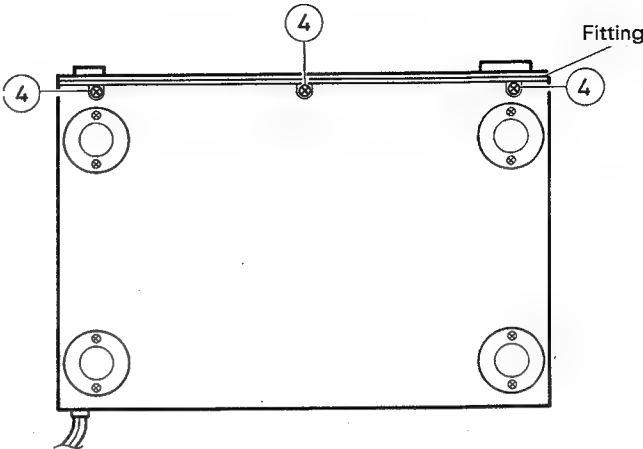


Fig. 2-3

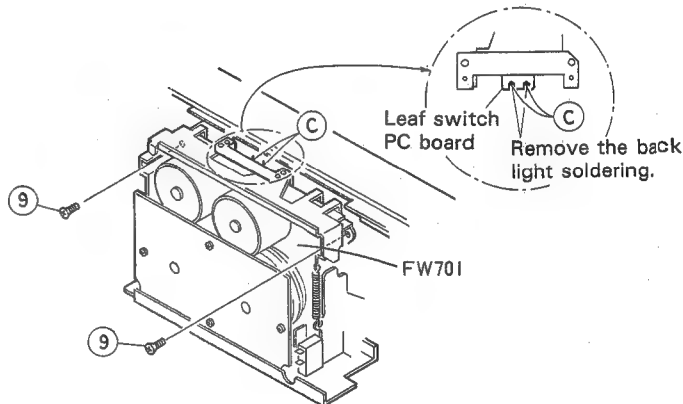


Fig. 2-4

■ **PC board assembly inside front panel**  
(see Figures 2-4 and 2-5).

1. Remove the front panel assembly.

● **Volume PC board assembly.**

1. Pull out the volume knob.
2. Remove the three screws (10) retaining the volume PC board.

● **FL PC board assembly**

1. Remove the volume PC board.
2. Remove the mechanism assembly (removing the back light soldering (C)).
3. Remove the nine screws (11) retaining the FL PC board.

● **Headphone PC board assembly**

1. Remove the screw (hexagonal) retaining the headphone jack.

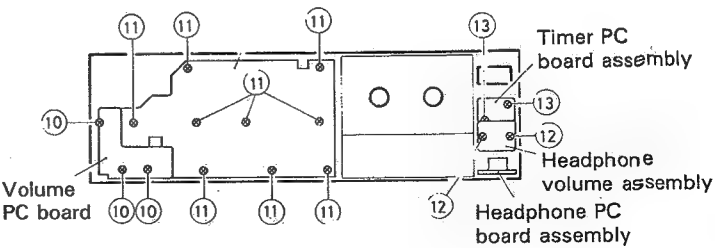


Fig. 2-5



### ● Headphone volume PC board assembly/timer switch PC board assembly

1. Pull out and remove the headphone volume knob.
2. Remove the two screws (12) retaining the headphone volume PC board (see Figure 2-5).
3. Remove the two screws (13) retaining the timer switch PC board (see Figure 2-5).

### ■ Main PC Board Assembly

1. Pull out and remove the input level volume knob.
2. Remove the two screws (14) retaining the volume on the back panel (see Figure 2-1).
3. Remove the three screws (15) retaining the pin jacks (see Figure 2-1).
4. Remove the screw (16) retaining the DCS jack (see Figure 2-1).
5. Push up the input volume shaft so that the shaft goes into a free state from the front panel (see Figure 2-2).
6. Pull out and remove the input volume assembly straight up.
7. Remove the four screws (5) retaining the amp shield case (see Figure 2-2).
8. Remove the screw (6) that is tightened with the headphone grounding.
9. Remove the CD direct switch bar (see Figure 2-6).
  - 1 Turn the switch ON.
  - 2 Pull the remote bar only from position 1.
  - 3 Remove the remote bar (from the switch shaft on the in L201: 562 side and remove by pushing to the back.
10. Pull the main PC board assembly slightly forward and bring it up from the back.
11. Since the headphone grounding will float up when a current is passed, connect it separately to the chassis.

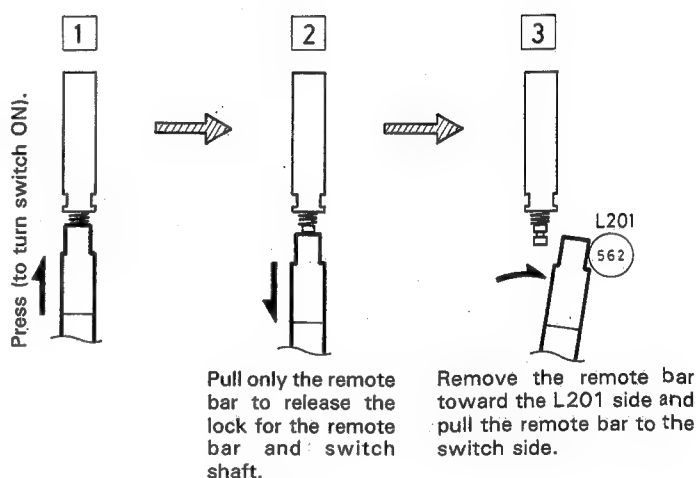


Fig. 2-6

### ● When removing only the mechanism assembly

1. Remove the top cover.
2. Remove the four screws (5) retaining the main PC board shield case (see Figure 2-2).
3. Remove the wires from the main PC board (see Figure 2-2).
  - a) Remove the wires CN802 and CN801 for record/playback and erase heads.
  - b) Remove CN703, CN713, CN702 and CN712 going to the leaf switch PC board.
4. Remove the cam switch wire (FW701) from the mechanism PC board connector (see Figure 2-2).
5. Remove the two screws (9) retaining the mechanism on the front panel assembly (see Figure 2-4).
6. Remove the two screws (7) retaining the mechanism assembly on the chassis (see Figure 2-2).
7. Remove the cassette back light soldering (C) on the center of the upper surface of the mechanism (Figure 2-4).

### ● When removing the front panel assembly (after removing the mechanism)

1. In case the mechanism assembly is included, carry out steps 1,2,3 of "Assembly Parts" on page 14.
2. Remove the wires from the main PC board (see Figure 2-2).
  - a) Remove CN804 for the Dolby switch/calibration volume.
  - b) Remove CN704 going to the FL PC board.
  - c) Remove CN805 and CN815 going to the headphone PC board.
3. Remove the cam switch wire (FW701) from the mechanism PC board connector.
4. Remove the screw (6) retaining the headphone PC board grounding wire (see Figure 2-2).
5. Remove the two screws (9) retaining the mechanism assembly to the front panel assembly (see Figure 2-4).
6. Remove the two screws (8) retaining the front panel and chassis to the bottom plate (see Figure 2-2).

### [Order for Disassembly of Mechanism]

- Remove the mechanism assembly from the mechanism holder.

#### ■ Replacing the Leaf Switch

1. Remove the two screws (1) retaining the switch arm assembly (also removing the collar at this time).
2. Remove the switch arm tension spring.
3. Remove the switch arm assembly, being careful not to bend the leaf switch.
4. Remove the three screws (2) retaining the leaf switch PC board assembly.
5. Remove the leaf switch.

#### ■ Replacing the Pinch Roller

##### (Right Side)

1. Remove the E washer (3) of the pinch roller shaft.
2. Pull the pinch roller assembly up slightly and remove the return spring (thin black spring) on the shaft side from the pinch roller.

##### (Left Side)

(Height must be adjusted with M300 gauge after replacement)

1. Remove the pinch roller arm shaft height adjustment screw (using a 4 mm nut remover (box)).
2. Remove the return spring on the chassis side.

#### ■ Replacing the head

(Be sure to re-adjust if you have turned the attachment screws).

1. Remove the three screws (5) for adjusting the head base height.
2. When removing the playback head, remove the two screws (6).
- If the head base is removed, the height adjustment spring will also come off.  
(Be careful not to lose it).
3. When the head base is removed, there is a recording head below this that can be removed by removing the three screws (7) and (8).
- (Be careful not to misplace the spring below the head).
4. Remove the attachment screw (9) to remove the erase head.

To remove the head mount base (when removing as the head block), remove the three screws (10), (11) and (12).

(Be careful at this time not to exert any stress on the playback head base).

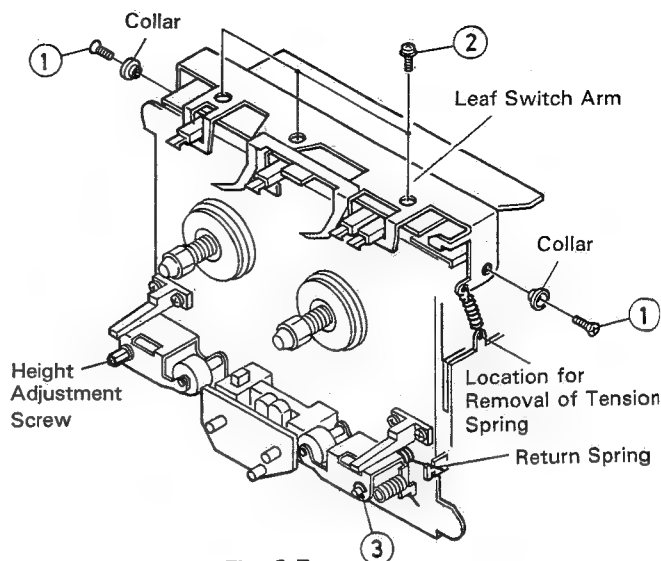


Fig. 2-7

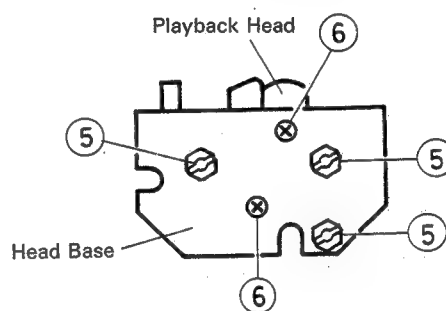


Fig. 2-8

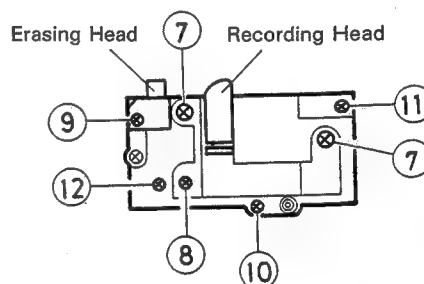


Fig. 2-9

### ■ Capstan Assembly (Including Flywheel)

1. Remove the pinch roller arm assembly (left and right).
2. Remove the ten screws (13), (14), (15), (16), (17) retaining the mechanism chassis and capstan motor assembly.
3. Loosening the Phillips head screw will facilitate removal of the capstan motor assembly.

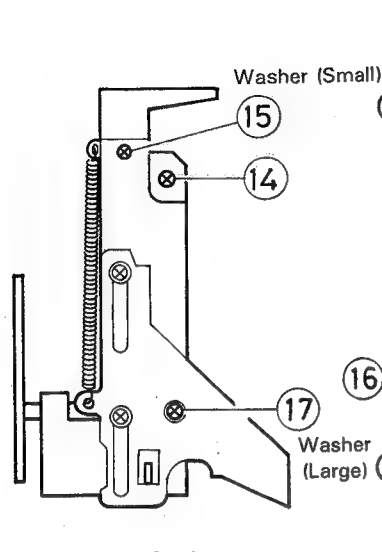


Fig. 2-10

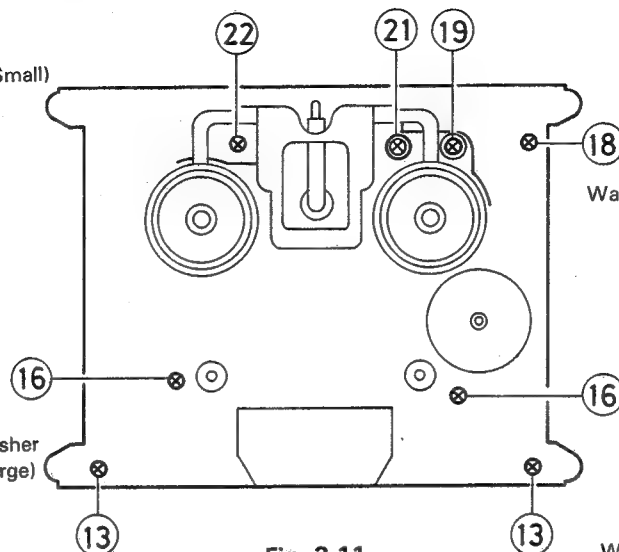


Fig. 2-11

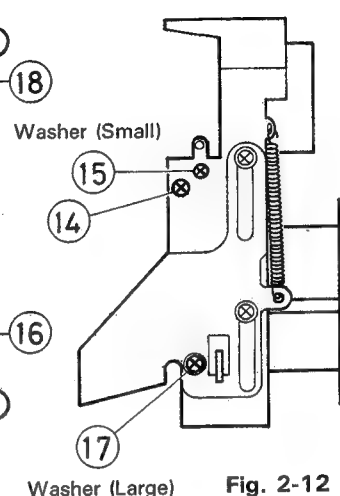


Fig. 2-12

### ■ Cam Motor Assembly/Reel Motor Assembly

1. Remove the motor terminal PC board and then remove the two screws (18) and (19) retaining the cam motor assembly. Remove the motor terminal PC board and then remove the two screws (22) and (21) retaining the reel motor assembly.
2. Or, if the cam motor assembly and reel motor assembly are removed at the same time, it is also possible to remove the terminal PC board assembly.

### ■ Cam Switch Assembly

Remove the screw (23) retaining the cam switch assembly. This can be removed by removing the disk brake lever from the reel disk.

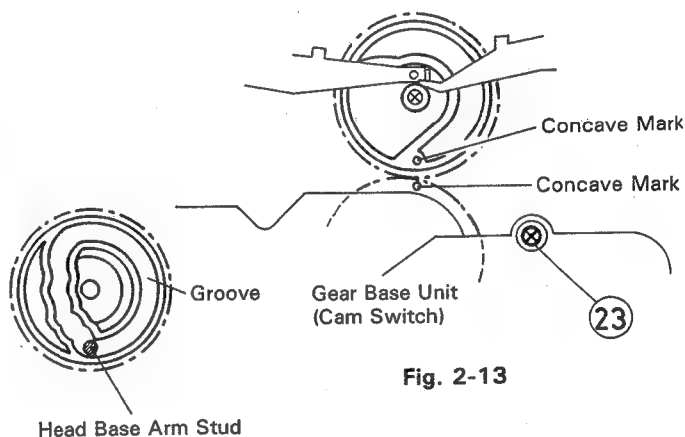


Fig. 2-13

Fig. 2-14

### ■ Replacing the Motor Belt and Flywheel

Remove the four screws (24) retaining the motor bracket (being careful of grease when belt comes off).

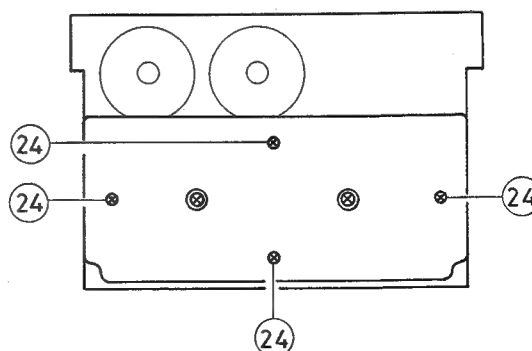


Fig. 2-15

### 3 Jig List

#### 1. Mechanism Adjusting Jig

- M300  
Head adjusting screw driver  
Box
- : Adjustment of head angle and tape running  
: Adjustment of head angle and height of tape guid  
: Adjustment of pinch roller height

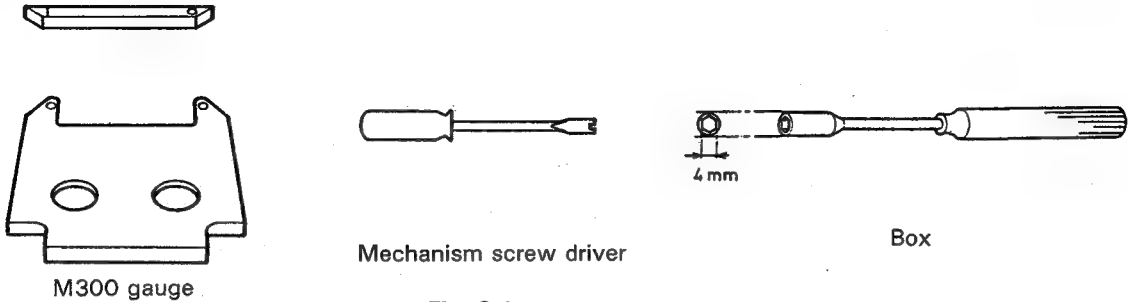


Fig. 3-1

#### 2. TEST TAPE

| Tape No.  | Frequency  | Purposes  |
|---|--|---|
| TS-12 (UD)<br>TS-10 (SA)<br>TS-11 (ME)  |  | Normal standard recording tape (for deck)<br>Standard crawling recording tape (AC-513)<br>Standard metal recording tape (AC-712)  |
| VTT712<br>VTT724<br>TMT735<br>VTT739<br>TMT6447<br>TMT6448<br>TMT702<br>CTG-N | 3 kHz<br>1 kHz<br>1 kHz 12.5 kHz<br>63 Hz, 1 kHz, 10 kHz<br><br>14 kHz | Measurement of tape speed/wow and flutter<br>Replaying level standard tape<br>Check of replaying frequency characteristics<br>Check of replaying frequency characteristics<br>Confirmation of music selection action (YES)<br>Confirmation of music selection action (NO)<br>Adjustment of replay head angle (azimuth)<br>Measurement of PLAY, FF and REW torques |
| Mirrored tape   |  | For confirmation of tape running  |

- 3.
- Audio frequency oscillator    Frequency range: 50 Hz ~ 20 kHz and output: more than 0 dBs (0.775 V) with 600 Ω impedance  
Attenuator  
Electronic voltmeter  
Distortion gauge (with band pass filter)  
Wow and flutter gauge  
Tape counter gauge tape speed and Bias frequency adjustment.  
DC voltmeter L304 and L404 adjustment

## 4 Main Adjustment

### ■ Mechanical Adjustment

When replacing head, check the height and tilt (rough adjustment) of each head as follows.

#### Tape travel adjustment

Use tool M300. Be careful not to damage head.

#### Tape guide adjustment

Reflector position  
(guide post)

Gauge moving direction

#### Tilt adjustment

Reflector position  
(guide post)

Gauge moving direction

Fig. 4-1

### ■ Location of adjustment

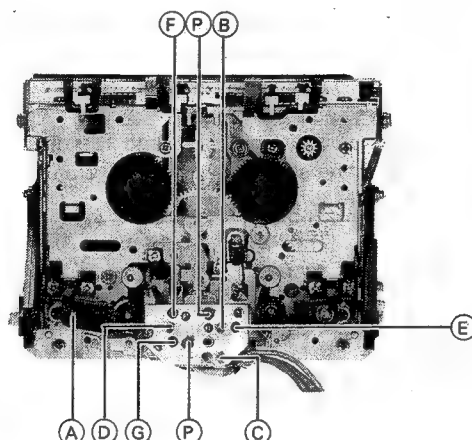
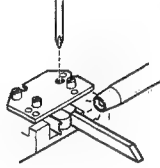
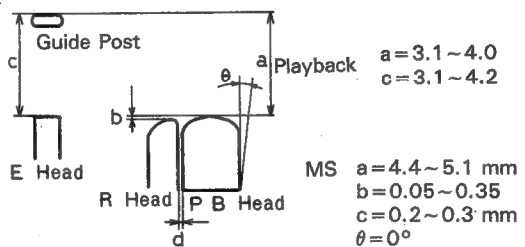

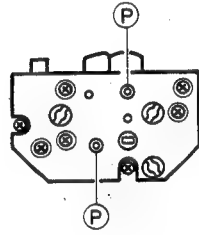


Fig. 4-2

### ■ Mechanical adjustment procedures

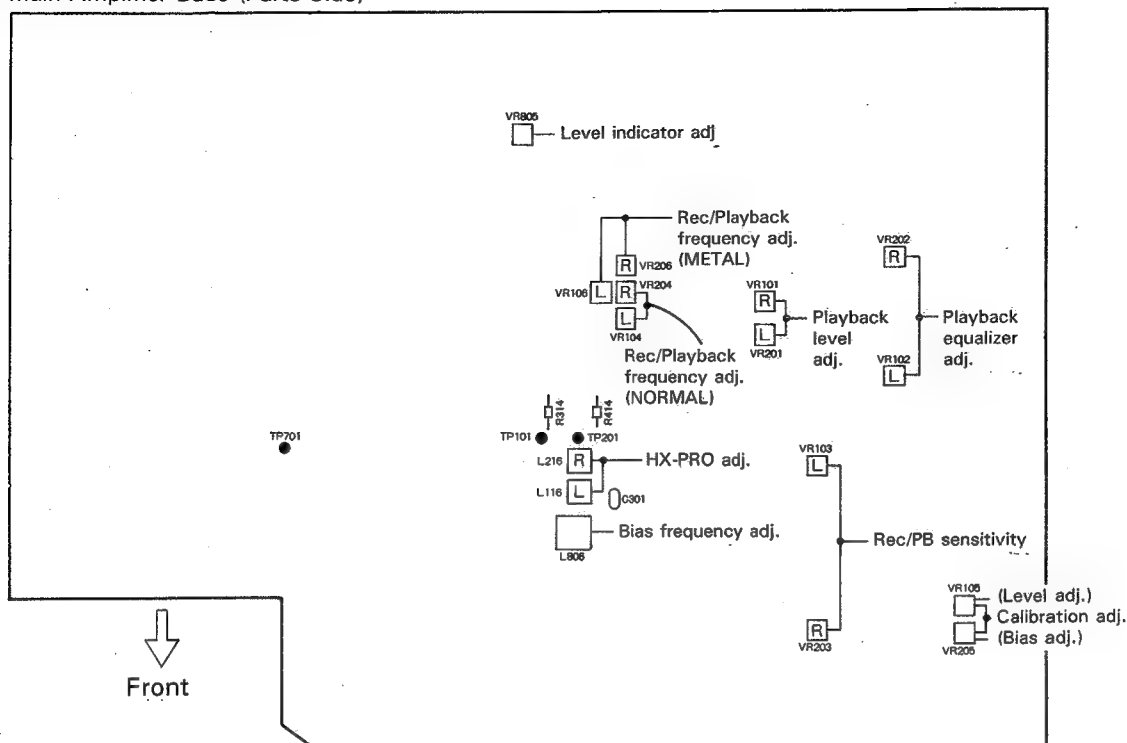
|   | Item                                     | Method   | Standard Value |  |
|---|--|--|----------------|--|
| 1 | Fly wheel and thrust check               | Check by feeling   | 0.2<br>~0.5 mm |  |
| 2 | Pinch roller fastening order check       | Right pinch roller should fasten to capstan shaft before left pinch roller.  |                |  |
| 3 | Pinch roller guide height adjustment     | Use M300 gauge and adjust (A) so that 3.8 mm gauge can pass.   |                |  |
| 4 | Playback head height and tilt adjustment | <ol style="list-style-type: none"> <li>1) Use M300 gauge and adjust playback head tape guide with (B) screw so that 3.8 mm gauge can pass.</li> <li>2) Adjust (C) screw so that playback head is not tilted and that there is no gap between the gauge and head.</li> <li>3) Gauge will touch gap face, adjust carefully. Hold a flash light from the opposite side and check for light leakage.</li> <li>4) Re-check guide height. If gauge touches, re-adjust upper 1), 2).</li> </ol> |                | <p>Head guide height adjustment</p> <p>Pinch roller guide height adjustment</p> <p>Playback head tilt adjustment</p> |

|     | Item  | Method  | Standard Value                                     |   |
|-----|---|---|--|---|
| 5   | Playback azimuth adjustment                     | Playback TMT702 (14 kHz) and adjust screw (D) to maximum output position with no phase difference.  |  |   |
| 6   | Tape travel check                               | Use C-90 padded tape and check that tape head is not curled at beginning of wind.   |  | Use mirror tape to check tape travel.   |
| 7   | Recording head height, tilt, Azimuth adjustment | 1) Record and playback 10 kHz and adjust screw (E) to maximum output position with no phase difference. (azimuth adjustment)<br>2) Record and playback 10 kHz and adjust screw (F) to maximum output position with no phase difference. (height adjustment)<br>3) Use M300 gauge and adjust recording head tilt with screw (G) following the procedure for adjusting playback head tilt.<br>4) Record and playback 10 kHz and re-adjust azimuth adjusting screw (E) to maximum output position. Match L/R phases. |  | <br>Recording head tilt adjustment   |
| 8   | Head position                                   | Use M300 gauge and adjust so that playback head is in front of recording head.<br>Other standards are as follows.<br>The measurements are as against guide post (H).<br><br>Bend and adjust head base so that a is within 4.4 ~ 5.1 mm at MS.<br><br>Excessive = Bend in ↑ direction<br>Insufficient = Bend in ↓ direction                  | 0.05<br>~0.35 mm                                   | <br>Head position adjustment<br>Adjust screw (P) so that playback head is "b" measurement in front of recording head.<br>[re-adjust playback, recording azimuth after adjusting (P).] |
| 9   | Confirmation of tape speed                      | By replaying VTT712, confirm that the reading of F counter is 3,000 ± 15 Hz.  | 3000 ± 15Hz  |   |
| 10. | Confirmation of one flatter                     | By replaying VTT712, confirm that the flatter meter value is not more than 0.04 % (WTD).  | 0.04% (WTD)  |   |
| 11  | Replay torque<br>FF/REW torque                  | By using the CT-120M gauge, confirm that the replay torque is 35 g - 70 g cm.<br>By using the CT-F gauge, confirm that the FF/REW torque is 70 - 200 g cm   | Replay:<br>35 - 70 g·cm<br>FF/REW:<br>70 ~ 200g·cm |   |
| 12  | Confirmation of MS action                       | After selection with the TMT6447 tape, start playing action.<br>Confirm that any selection action cannot be performed with the TMT6448 tape.  |  |   |



## ■ Electric Circuit Adjustment Location

Main Amplifier Base (Parts Side)



## ■ Electrical Circuit Adjustment Procedures

Make the following adjustment after the tape travel and head angle adjustment.

- In principle, the adjustments should be made in the order described.
- Adjustments required after head replacement are marked with an asterisk (\*)

0dB  $\div$  0.775V

|   | Item  | Adjustment and Check Methods |   |                  |                            |
|---|---|------------------------------|---|------------------|----------------------------|
| 1 | Dolby circuit recording check (record mode) |                              |   | Frequency Level  | Output Value and Deviation |
|   |   | Record, Dolby B              | INPUT: LINE IN (−8 dBs)<br>Measurement Point: IC803, pins ⑬ ⑭<br>Measurement point reference level: 400 Hz −6 dBs (388 mV) (= Cal. level) | 1 kHz Cal −40 dB | +5.7 dB ± 2 dB             |
|   |   |                              |   | 5 kHz Cal −20 dB | +3.5 dB ± 1.5 dB           |
|   |   |                              |   | 1 kHz Cal        | 0 dB ± 0.5 dB              |
|   |   | Record, Dolby C              |   | 1 kHz Cal −40 dB | +16.2 dB ± 1 dB            |
|   |   |                              |   | 5 kHz Cal −20 dB | +2.9 dB ± 2.5 dB           |
|   |   |                              |   | 1 kHz Cal        | 0 dB ± 1 dB                |

| Item                             | Adjustment Method  | Adjustment Location | Standard Value   | Remarks   |
|----------------------------------|--|---------------------|--|---|
| *2 Playback level adjustment     | 1) Play the VTT724 (1 kHz) test tape and adjust VR101 and VR201 so that the LINE OUT output is −7.5 dBs (the L-R channel output differential must be 0.5 dBs or less).<br>2) Headphone output check −17.5 dBs $\pm$ 3 dB L-R differential 2 dB or less | VR101, VR201        | −7.5 dBs $\pm$ 0.5 dB<br><br>Phones level −17.5 dBs $\pm$ 3 dB | The playback level changes when the head is replaced and must be adjusted. use an electronic voltmeter with an impedance of 100 k $\Omega$ or more. |
| *3 Playback equalizer adjustment | Play the TMT735 (1 kHz, 12.5 kHz) test tape and adjust VR102 and VR202 so that the output value is standard at 1 kHz and 12.5 kHz.   | VR102, VR202        | With 1 kHz as reference, 0.5 $\pm$ 0.5 dB at 12.5 kHz          | NR: OFF<br>63 kHz: +2 dB $\pm$ 3 dB (check) (VTT739)  |
| 4 Bias frequency adjustment      | Connect a frequency counter to the body of C301 and adjust L806 so that the counter reads 210 kHz $\pm$ 3 kHz  | L806                | 210 kHz $\pm$ 3 kHz  | METAL TAPE Position (Attach a probe to the measuring instrument lead terminal and plug in the connector plug.)                                      |

|    | Item                                      | Adjustment Method   | Adjustment Location  | Standard Value  | Remarks  |
|----|---|---|--|---|--|
| 5  | HX PRO coil adjustment                    | This step must be performed after the bias frequency adjustment. Load a metal tape and set the deck to the recording mode. Adjust L116(L) and L216 (R) to minimum respective voltage of TP101(L) and TP201(R).  | L116, L216   | Minimum output value  | DC voltmeter<br>TP101: R314<br>TP201: R414   |
| *6 | Recording/playback frequency adjustment   | Record 1 kHz at the Ref - 20 dB input then record 63 Hz and 12.5 kHz and adjust VR104 and VR204 so that the difference between the 63 Hz and 12.5 kHz outputs is the standard value in relation to the 1 kHz output during playback.<br>(Basically, adjust so that the 1 kHz and 12.5 kHz outputs are the standard values.)<br>Next, record and replay a metal tape, and adjust the difference within 0 + 1 dB by means of VR106 and VR206. | Normal<br>VR104, VR204<br>Center the bias adjustment volume (VR807) (control on the front panel).<br>Metal<br>VR106, VR206 | With 1 kHz as reference, Normal<br>$0.5 \pm 0.5$ dB at 12.5 kHz.<br>CrO <sub>2</sub> /Metal<br>$0 \pm 1$ dB at 12.5 kHz | Ref - 20 dB: value - 20 dB below the reference input value $\pm$ - 28 dB<br>Also adjust for normal tape and the left and right channels.<br>• The bias value is set in accordance with the voltage shift for normal at chrome and metal.<br>• When the bias current is not correctly adjusted, the recording characteristics will become as shown to the left.   |
|    |   |   |  |   |  |
| *7 | Recording/playback sensitivity adjustment | 1) Input to the LINE IN terminal so that the source monitor output is - 7.5 dBs.<br>2) Adjust VR103 and VR203 so that the recording signal current is - 7.5 dBs during recording and playback.  | VR103, VR203   | Normal<br>- 7.5 dBs $\pm 0.5$ dB<br>Chrome, metal:<br>- 7.5 dBs $\pm 1.5$ dB  | The right and left level differential must be 1 dB or less for both normal and metal. Make adjustment by using normal tape, and make sure that the level fluctuation for chrome and metal tapes is within 1.5 dB, and that the left/right level difference is within 1.0 dB. During adjustment, set the balance volume to the center position. After adjustment, turn the volume and confirm that the Lch and Rch are correct. |
| *8 | Adjustment of calibration                 | 1. Connect TP701 to the earth when turning off the power source.<br>2. After turning on the power source, set the monitor to the [SOURCE], and press the calibration button and play button at the same time.<br>3. Adjust VR105 (LEVEL) and VR205 (BIAS) so that the leveling indicators [LEVEL] and [BIAS] on the FL indicator section turn on at [0 LEVEL], the lowest levels.   | VR105<br>VR205   | Lowest point where the FL 0 level is turned on.   |  |
|    | Confirmation of calibration volume        | The values of the recording and replaying (monitor) levels, which are by - 20 dB lower than the reference (0 Vu) at 10 kHz, should be decreased and increased when turning the calibration bias adjusting VR counterclockwise and clockwise respectively.   | Calibration bias volume  | Clockwise: Decrease<br>Counterclockwise: Increase   | VR807  |
|    |   | The values of the recording and replaying (monitor) levels, which are by - 20 dB lower than the reference (0 Vu) at 1 kHz, should be increased and decreased when turning the calibration bias adjusting VR counterclockwise and clockwise respectively.  | Calibration level volume   | Clockwise: Increase<br>Counterclockwise: Decrease   | VR801  |

|           | Item   | Adjustment Method   | Adjustment Location | Standard Value  | Remarks   |                |     |                |      |                 |      |                 |       |   |  |
|-----------|--|---|---------------------|---|---|----------------|-----|----------------|------|-----------------|------|-----------------|-------|---|--|
| 9         | Adjustment and confirmation of level indicator | <p>1) While applying 1 kHz signal, adjust the input on the monitor (SOURCE) so that the line output level becomes - 34 dBs. Adjust VR805 so that (- 30 dB" of the FL level indicator is turned on and both or one of the indicators are turned on at - 36 dBs.</p> <p>2)</p> <table><tr><th>Indicator</th><th>Line output level</th></tr><tr><td>0</td><td>- 4 dBs ± 1 dB</td></tr><tr><td>+ 8</td><td>+ 2 dBs ± 2 dB</td></tr><tr><td>- 10</td><td>- 14 dBs ± 2 dB</td></tr><tr><td>- 30</td><td>- 34 dBs ± 3 dB</td></tr></table> | Indicator           | Line output level   | 0   | - 4 dBs ± 1 dB | + 8 | + 2 dBs ± 2 dB | - 10 | - 14 dBs ± 2 dB | - 30 | - 34 dBs ± 3 dB | VR805 | Output<br>ON at - 34 dB<br>OFF at - 36 dB | <p>1) Whenever the output is by + 1 dB greater than the specified input, 1, 2, 3... will successively be indicated.</p> <p>2) When the output is less than the specified input, the maximum value will be held for about 2 sec.</p> <p>3) Press the [CALL] button to indicate [OVER 12 dB] for 5 sec. by flickering.</p> |
| Indicator | Line output level                              |   |                     |   |   |                |     |                |      |                 |      |                 |       |   |  |
| 0         | - 4 dBs ± 1 dB                                 |   |                     |   |   |                |     |                |      |                 |      |                 |       |   |  |
| + 8       | + 2 dBs ± 2 dB                                 |   |                     |   |   |                |     |                |      |                 |      |                 |       |   |  |
| - 10      | - 14 dBs ± 2 dB                                |   |                     |   |   |                |     |                |      |                 |      |                 |       |   |  |
| - 30      | - 34 dBs ± 3 dB                                |   |                     |   |   |                |     |                |      |                 |      |                 |       |   |  |
| 10        | Recording/playback distortion check            | <p>1) Record a 1 kHz signal so that the LINE OUT output is - 2 dBs and the level indicator is + 6 dVB.</p> <p>2) Use a distortion gauge to check if the output is the standard value during playback.</p>   |                     | Normal tape:<br>2% or less<br>Chrome tape:<br>3% or less<br>Metal tape:<br>2% or less | Check after adjusting the bias current and recording level.   |                |     |                |      |                 |      |                 |       |   |  |
| 11        | Recording/playback S/N ratio check             | <p>1) Record 1 kHz, 0 dB input and then remove the input and record without a signal.</p> <p>2) Playback this recording and measure the difference between the 0 dB recording and no-signal recording. The standard values must be satisfied.</p>   |                     | Normal:<br>38 dB or more<br>Chrome:<br>42 dB or more<br>Metal:<br>42 dB or more       |   |                |     |                |      |                 |      |                 |       |   |  |
| 12        | Erase ratio check                              | <p>1) Apply a 1 kHz signal from LINE IN and adjust the INPUT LEVEL knob so that the input level is - 8 dBs.</p> <p>2) Increase the signal level to 20 dB and record.</p> <p>3) Rewind and erase the recorded section of the tape.</p> <p>4) Measure the output ratio between the signal and no-signal sections of the tape with an electronic voltmeter.</p>  |                     | 55 dB or more   | <p>Connect a B.P.F (band pass filter) between the deck and the electronic voltmeter.</p> <div><div>1 kHz 0 VU<br/>+ 20 dB input</div><div>→</div><div>Deck record/<br/>erase</div></div> <div><div>(1 kHz)</div><div>→</div><div>Band pass<br/>filter (B.P.F.)</div><div>→</div><div>Electronic<br/>voltmeter</div></div> |                |     |                |      |                 |      |                 |       |   |  |



# 6 Wiring Connections

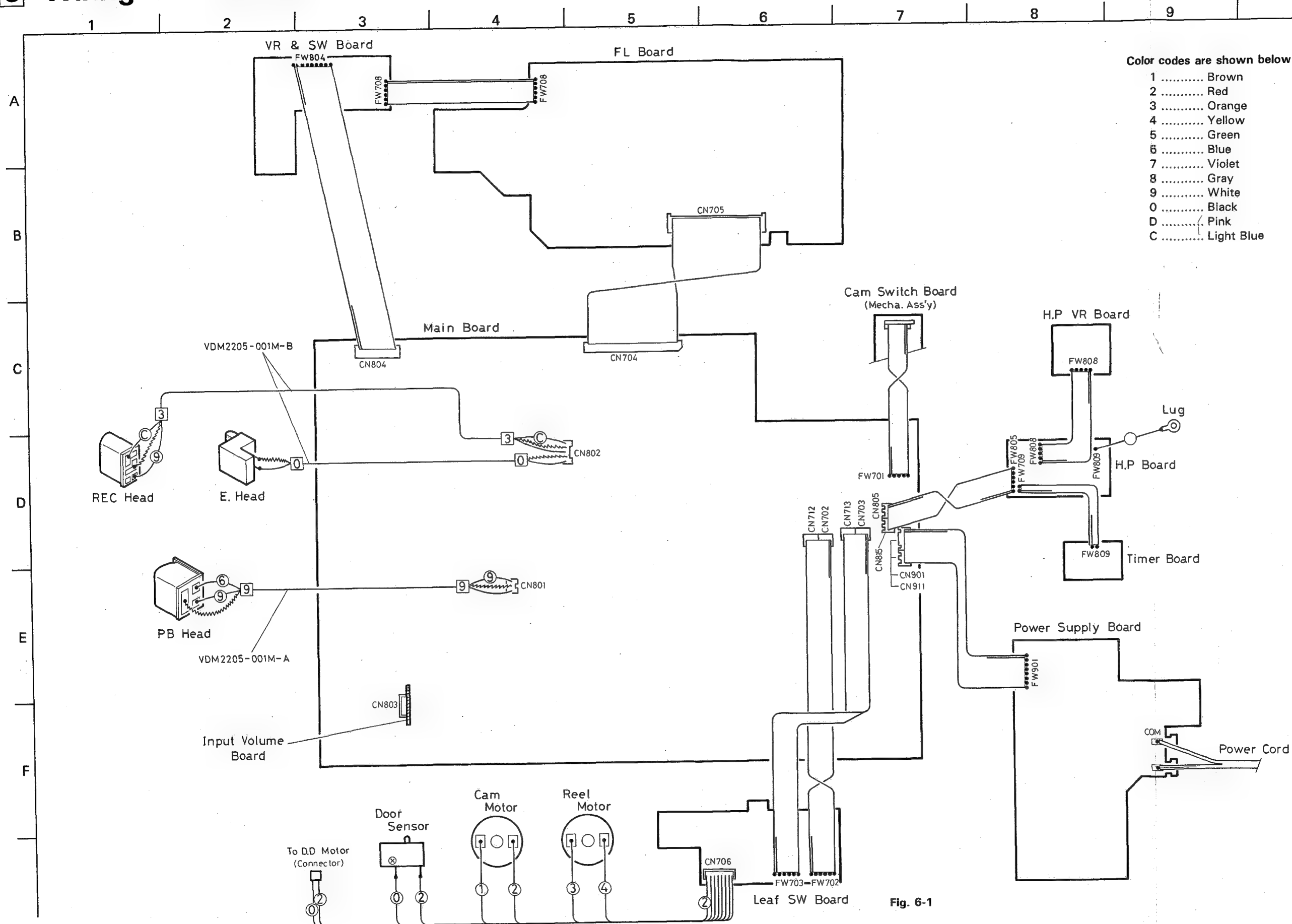
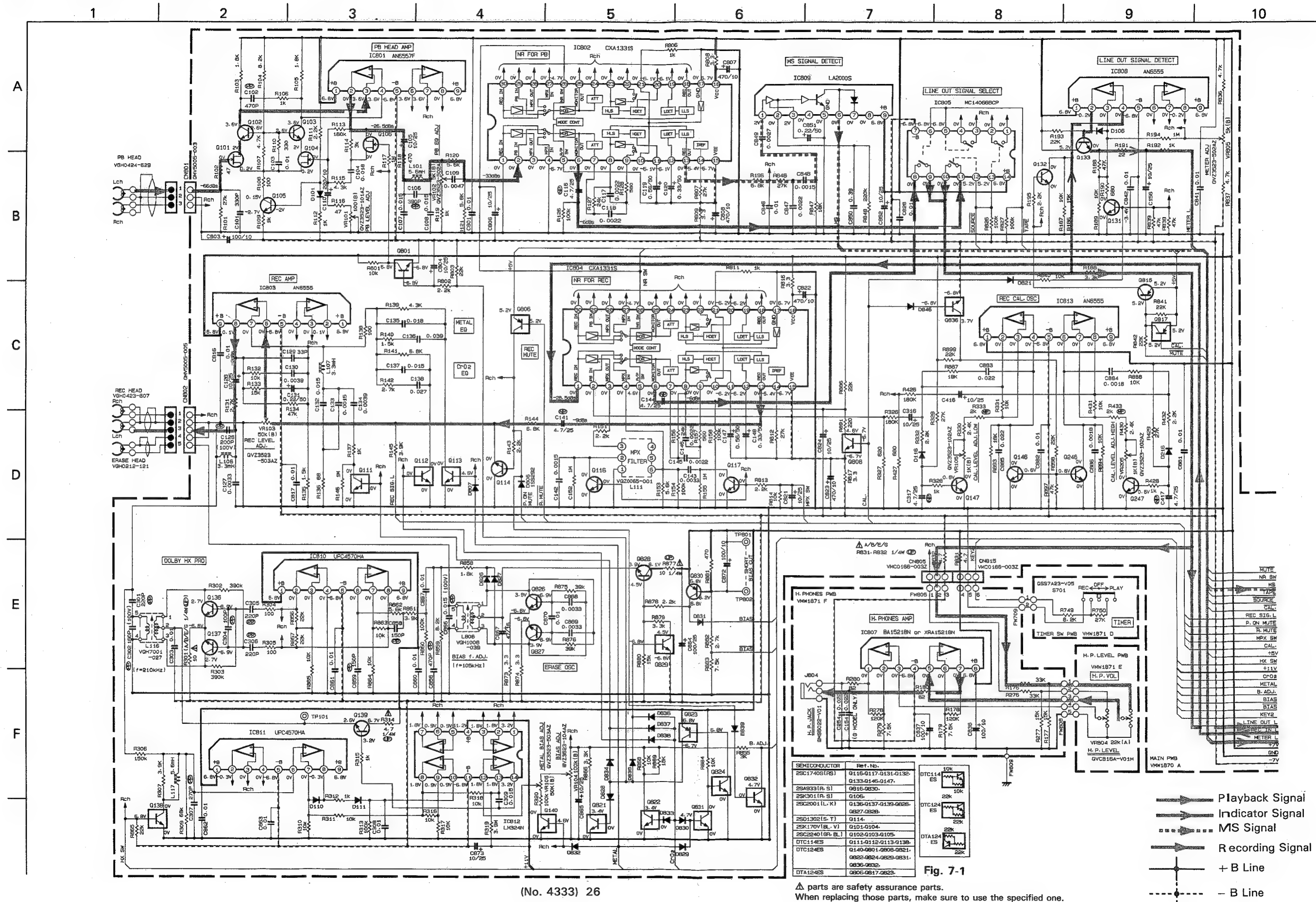


Fig. 6-1

# 7 Standard Schematic Diagram





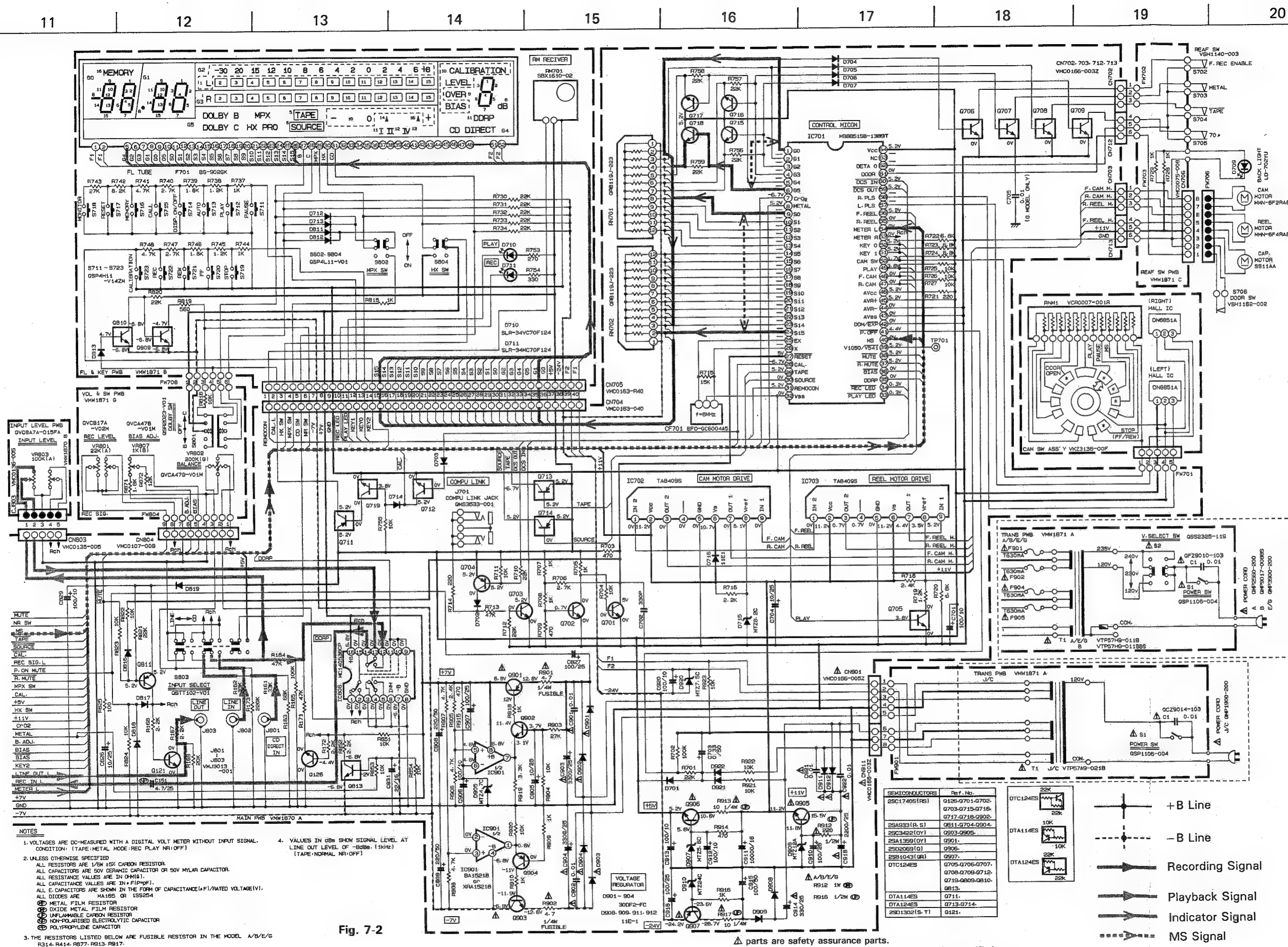


Fig. 7-2

Δ parts are safety assurance parts.  
When replacing those parts, make sure to use the specified one.



# 8 Location of P.C. Board and P.C. Board Parts List

BLOCK NO. 01

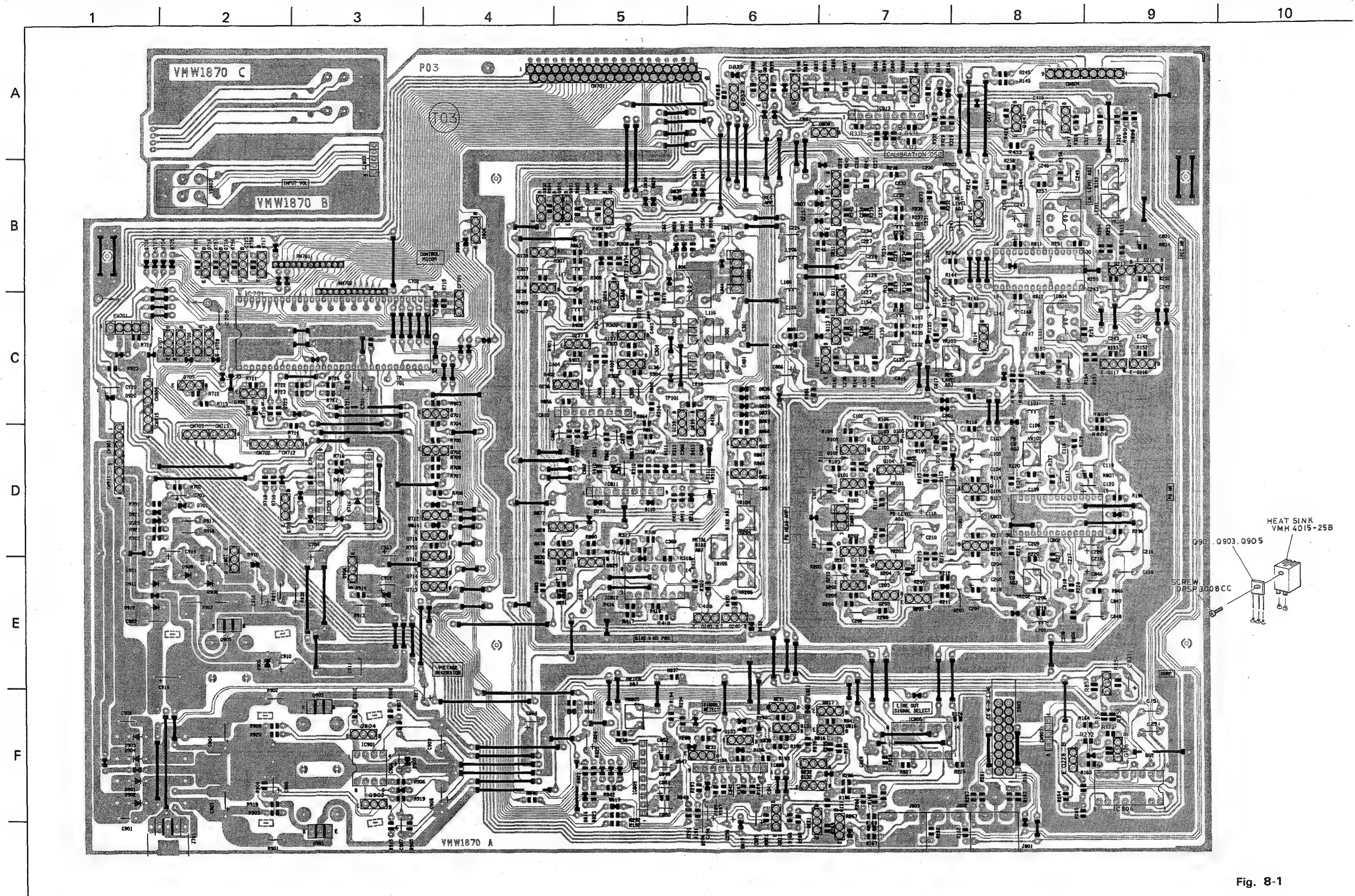


Fig. 8-1

△ Parts are safety assurance parts.  
When replacing those parts, make  
sure to use the specified one.

## ● Main Board Parts List

BLOCK NO. 01

| △ REF. | PARTS NO.     | PARTS NAME     |
|--------|---------------|----------------|
| C 101  | EFZ0101-331ZS | NH CAPACITOR   |
| C 102  | QFP31HJ-471ZM | PP.CAPACITOR   |
| C 103  | QFV41HJ-103   | FILM CAPACITOR |
| C 104  | QFV41HJ-183   | TF CAPACITOR   |
| C 105  | VCE0036-106   | E CAP(TAPING)  |
| C 106  | QFP31HJ-391ZM | PP CAPACITOR   |
| C 107  | QFV71HJ-153ZM | FILM CAPACITOR |
| C 108  | QFV71HJ-153ZM | FILM CAPACITOR |
| C 109  | QFN41HJ-472   | M CAPACITOR    |
| C 110  | VCE0063-227Z  | E CAPACITOR    |
| C 116  | VCE0033-475   | E CAP(TAPING)  |
| C 117  | QFN41HJ-222   | M CAPACITOR    |
| C 118  | QFN41HJ-222   | M CAPACITOR    |
| C 119  | QETC1HM-564ZN | E CAPACITOR    |
| C 120  | QETC1HM-334ZN | E CAPACITOR    |
| C 126  | QFP32AJ-201ZM | PP CAPACITOR   |
| C 127  | QFN41HJ-332   | M CAPACITOR    |
| C 128  | VCE0036-106   | E CAP(TAPING)  |
| C 129  | QCS11HJ-330   | C CAPACITOR    |
| C 130  | QFN41HJ-392   | M CAPACITOR    |
| C 131  | QETC1HM-224ZN | E CAPACITOR    |
| C 132  | QFV71HJ-153ZM | FILM CAPACITOR |
| C 133  | QFN41HJ-152   | M CAPACITOR    |
| C 134  | QFN41HJ-392   | M CAPACITOR    |
| C 135  | QFV41HJ-183   | TF CAPACITOR   |
| C 136  | QFV71HJ-393ZM | FILM CAPACITOR |
| C 137  | QFV41HJ-223   | FILM CAPACITOR |
| C 138  | QFV71HJ-273ZM | TF.CAPACITOR   |
| C 141  | VCE0033-475   | E CAP(TAPING)  |
| C 142  | QFN41HJ-152   | M CAPACITOR    |
| C 143  | QFN41HJ-332   | M CAPACITOR    |
| C 144  | VCE0033-475   | E CAP(TAPING)  |
| C 145  | QFN41HJ-222   | M CAPACITOR    |
| C 146  | QFN41HJ-222   | M CAPACITOR    |
| C 147  | QETC1HM-564ZN | E CAPACITOR    |
| C 148  | QETC1HM-334ZN | E CAPACITOR    |
| C 151  | VCE0033-475   | E CAP(TAPING)  |
| C 156  | QETC1EM-106ZN | E CAPACITOR    |
| C 201  | EFZ0101-331ZS | NH CAPACITOR   |
| C 202  | QFP31HJ-471ZM | PP.CAPACITOR   |
| C 203  | QFV41HJ-103   | FILM CAPACITOR |
| C 204  | QFV41HJ-183   | TF CAPACITOR   |
| C 205  | VCE0036-106   | E CAP(TAPING)  |
| C 206  | QFP31HJ-391ZM | PP CAPACITOR   |
| C 207  | QFV71HJ-153ZM | FILM CAPACITOR |
| C 208  | QFV71HJ-153ZM | FILM CAPACITOR |
| C 209  | QFN41HJ-472   | M CAPACITOR    |
| C 210  | VCE0063-227Z  | E CAPACITOR    |
| C 216  | VCE0033-475   | E CAP(TAPING)  |
| C 217  | QFN41HJ-222   | M CAPACITOR    |
| C 218  | QFN41HJ-222   | M CAPACITOR    |
| C 219  | QETC1HM-564ZN | E CAPACITOR    |
| C 220  | QETC1HM-334ZN | E CAPACITOR    |
| C 226  | QFP32AJ-201ZM | PP CAPACITOR   |
| C 227  | QFN41HJ-332   | M CAPACITOR    |
| C 228  | VCE0036-106   | E CAP(TAPING)  |
| C 229  | QCS11HJ-330   | C CAPACITOR    |
| C 230  | QFN41HJ-392   | M CAPACITOR    |
| C 231  | QETC1HM-224ZN | E CAPACITOR    |
| C 232  | QFV71HJ-153ZM | FILM CAPACITOR |
| C 233  | QFN41HJ-152   | M CAPACITOR    |
| C 234  | QFN41HJ-392   | M CAPACITOR    |
| C 235  | QFV41HJ-183   | TF CAPACITOR   |
| C 236  | QFV71HJ-393ZM | FILM CAPACITOR |
| C 237  | QFV41HJ-223   | FILM CAPACITOR |
| C 238  | QFV71HJ-273ZM | TF.CAPACITOR   |
| C 241  | VCE0033-475   | E CAP(TAPING)  |
| C 242  | QFN41HJ-152   | M CAPACITOR    |
| C 243  | QFN41HJ-332   | M CAPACITOR    |
| C 244  | VCE0033-475   | E CAP(TAPING)  |
| C 245  | QFN41HJ-222   | M CAPACITOR    |
| C 246  | QFN41HJ-222   | M CAPACITOR    |
| C 247  | QETC1HM-564ZN | E CAPACITOR    |
| C 248  | QETC1HM-334ZN | E CAPACITOR    |
| C 251  | VCE0033-475   | E CAP(TAPING)  |
| C 256  | QETC1EM-106ZN | E CAPACITOR    |
| C 301  | QFP41HJ-221   | PP CAPACITOR   |
| C 302  | QFP32AJ-181ZM | PP.CAPACITOR   |
| C 303  | QCVB1CM-103Y  | C CAPACITOR    |
| C 304  | QFP31HJ-101ZM | PP CAPACITOR   |
| C 305  | QFP41HJ-221   | PP CAPACITOR   |
| C 306  | QFP41HJ-221   | PP CAPACITOR   |
| C 307  | QFP31HJ-271ZM | PP CAPACITOR   |
| C 308  | QFV41HJ-103   | FILM CAPACITOR |
| C 309  | QFV71HJ-153ZM | FILM CAPACITOR |

| △ REF.  | PARTS NO.     | PARTS NAME     |
|---------|---------------|----------------|
| C 316   | QETC1EM-106ZN | E CAPACITOR    |
| C 317   | VCE0033-475   | E CAP(TAPING)  |
| C 401   | QFP41HJ-221   | PP CAPACITOR   |
| C 402   | QFP32AJ-181ZM | PP.CAPACITOR   |
| C 403   | QCVB1CM-103Y  | C CAPACITOR    |
| C 404   | QFP31HJ-101ZM | PP CAPACITOR   |
| C 405   | QFP41HJ-221   | PP CAPACITOR   |
| C 406   | QFP41HJ-221   | PP CAPACITOR   |
| C 407   | QFP31HJ-271ZM | PP CAPACITOR   |
| C 408   | QFV41HJ-103   | FILM CAPACITOR |
| C 409   | QFV71HJ-153ZM | FILM CAPACITOR |
| C 416   | QETC1EM-106ZN | E CAPACITOR    |
| C 417   | VCE0033-475   | E CAP(TAPING)  |
| C 701   | QETC1AM-107ZN | E CAPACITOR    |
| C 702   | QCVB1CM-103Y  | C CAPACITOR    |
| C 703   | QETC1HM-334ZN | E CAPACITOR    |
| C 704   | QETC1EM-106ZN | E CAPACITOR    |
| C 705   | QCVB1CM-103Y  | C CAPACITOR    |
| C 801   | QCVB1CM-103Y  | C CAPACITOR    |
| C 803   | QETC1AM-107ZN | E CAPACITOR    |
| C 804   | QETC1EM-106ZN | E CAPACITOR    |
| C 806   | QETC1EM-106ZN | E CAPACITOR    |
| C 807   | VCE0065-477Z  | E CAP(TAPING)  |
| C 808   | VCE0065-477Z  | E CAP(TAPING)  |
| C 816   | QCVB1CM-103Y  | C CAPACITOR    |
| C 817   | QCVB1CM-103Y  | C CAPACITOR    |
| C 821   | QETC1EM-106ZN | E CAPACITOR    |
| C 822   | VCE0065-477Z  | E CAP(TAPING)  |
| C 823   | VCE0065-477Z  | E CAP(TAPING)  |
| C 824   | QETC1EM-106ZN | E CAPACITOR    |
| C 826   | QETC1EM-106ZN | E CAPACITOR    |
| C 827   | QETC1EM-107ZN | E CAPACITOR    |
| C 828   | QCVB1CM-103Y  | C CAPACITOR    |
| C 829   | QETC1AM-107ZN | E CAPACITOR    |
| C 831   | QETC1CM-226ZN | E CAPACITOR    |
| C 841   | QCVB1CM-103Y  | C CAPACITOR    |
| C 842   | QCVB1CM-103Y  | C CAPACITOR    |
| C 846   | QFV41HJ-103   | FILM CAPACITOR |
| C 847   | QFN41HJ-222   | M CAPACITOR    |
| C 848   | QFN41HJ-152   | M CAPACITOR    |
| C 849   | QFN41HJ-272   | M CAPACITOR    |
| C 850   | QFV81HJ-394   | FILM CAPACITOR |
| C 851   | QETC1HM-224ZN | E CAPACITOR    |
| C 852   | QETC1EM-106ZN | E CAPACITOR    |
| C 856   | QFP31HJ-471ZM | PP.CAPACITOR   |
| C 857   | QFV41HJ-103   | FILM CAPACITOR |
| C 858   | QFP31HJ-151ZM | PP CAPACITOR   |
| C 859   | QFP31HJ-151ZM | PP CAPACITOR   |
| C 860   | QCVB1CM-103Y  | C CAPACITOR    |
| C 861   | QCVB1CM-103Y  | C CAPACITOR    |
| C 862   | QCVB1CM-103Y  | C CAPACITOR    |
| C 863   | QCVB1CM-103Y  | C CAPACITOR    |
| C 864   | QETC1EM-107ZN | E CAPACITOR    |
| C 865   | QETC1EM-106ZN | E CAPACITOR    |
| C 866   | QFP32AJ-153   | P.P.CAPACITOR  |
| C 867   | QETC1CM-476ZN | E CAPACITOR    |
| C 868   | QFN41HJ-332   | M CAPACITOR    |
| C 869   | QFN41HJ-332   | M CAPACITOR    |
| C 870   | QFV41HJ-103   | FILM CAPACITOR |
| C 872   | QETC1AM-107ZN | E CAPACITOR    |
| C 873   | QETC1EM-106ZN | E CAPACITOR    |
| C 881   | QCVB1CM-103Y  | C CAPACITOR    |
| C 882   | QCVB1CM-103Y  | C CAPACITOR    |
| C 883   | QFV41HJ-223   | FILM CAPACITOR |
| C 884   | QFN41HJ-182   | M CAPACITOR    |
| C 885   | QFV41HJ-223   | FILM CAPACITOR |
| △ C 886 | QFN41HJ-182   | M CAPACITOR    |
| △ C 901 | QFV41HJ-103   | FILM CAPACITOR |
| △ C 902 | QFV41HJ-103   | FILM CAPACITOR |
| △ C 903 | VCE0064-338   | E CAPACITOR    |
| △ C 904 | VCE0064-338   | E CAPACITOR    |
| C 905   | QETC1EM-106ZN | E CAPACITOR    |
| C 906   | QETC1AM-107ZN | E CAPACITOR    |
| C 907   | QETC1EM-107ZN | E CAPACITOR    |
| C 908   | VCE0034-227   | E CAPACITOR    |
| C 909   | VCE0034-227   | E CAPACITOR    |
| C 910   | QETC1EM-107ZN | E CAPACITOR    |
| C 911   | QETB1CM-109N  | E CAPACITOR    |
| △ C 912 | QETC1AM-107ZN | E CAPACITOR    |
| C 913   | QETC1AM-107ZN | E CAPACITOR    |
| △ C 914 | VCE0062-337   | E CAPACITOR    |
| C 915   | QETC1HM-107ZN | E CAPACITOR    |
| C 916   | QETC1EM-107ZN | E CAPACITOR    |
| C 918   | QETB1EM-228N  | E CAPACITOR    |
| C 920   | QETC1AM-107ZN | E CAPACITOR    |



| REF.    | PARTS NO.      | PARTS NAME     |
|---------|----------------|----------------|
| △ C 921 | QFV41HJ-103    | FILM CAPACITOR |
| △ C 922 | QFV41HJ-103    | FILM CAPACITOR |
| CF701   | EFD-GC6004A5   | CERA LOCK      |
| CJ803   | VMC0136-005    | CONNECTOR      |
| CN702   | VMC0166-003Z   | CONNECTOR      |
| CN703   | VMC0166-003Z   | CONNECTOR      |
| CN704   | VMC0163-040    | CONNECTOR      |
| CN712   | VMC0166-003Z   | CONNECTOR      |
| CN713   | VMC0166-003Z   | CONNECTOR      |
| CN801   | QMV5005-003    | CONNECTOR      |
| CN802   | QMV5005-005    | PLUG           |
| CN803   | VMC0135-005    | CONNECTOR      |
| CN804   | VMC0107-009    | CONNECTOR      |
| CN805   | VMC0166-003Z   | CONNECTOR      |
| CN815   | VMC0166-003Z   | CONNECTOR      |
| CN901   | VMC0166-005Z   | CONNECTOR      |
| CN911   | VMC0166-003Z   | CONNECTOR      |
| D 101   | 1SS254         | SI DIODE       |
| D 106   | 1SS254         | SI DIODE       |
| D 110   | 1SS254         | SI DIODE       |
| D 111   | 1SS254         | SI DIODE       |
| D 116   | 1SS254         | SI DIODE       |
| D 201   | 1SS254         | SI DIODE       |
| D 206   | 1SS254         | SI DIODE       |
| D 210   | 1SS254         | SI DIODE       |
| D 211   | 1SS254         | SI DIODE       |
| D 216   | 1SS254         | SI DIODE       |
| D 701   | 1SS254         | SI DIODE       |
| D 702   | 1SS254         | SI DIODE       |
| D 703   | 1SS254         | SI DIODE       |
| D 704   | 1SS254         | SI DIODE       |
| D 705   | 1SS254         | SI DIODE       |
| D 706   | 1SS254         | SI DIODE       |
| D 707   | 1SS254         | SI DIODE       |
| D 714   | 1SS254         | SI DIODE       |
| D 715   | MTZ8.2C        | ZENER DIODE    |
| D 716   | 11E1           | SI DIODE       |
| D 806   | 1SS292         | SI DIODE       |
| D 807   | 1SS254         | SI DIODE       |
| D 816   | 1SS254         | SI DIODE       |
| D 817   | 1SS254         | SI DIODE       |
| D 818   | 1SS254         | SI DIODE       |
| D 819   | 1SS254         | SI DIODE       |
| D 821   | 1SS254         | SI DIODE       |
| D 826   | 1SS254         | SI DIODE       |
| D 827   | 1SS254         | SI DIODE       |
| D 828   | 1SS254         | SI DIODE       |
| D 829   | 1SS254         | SI DIODE       |
| D 830   | 1SS254         | SI DIODE       |
| D 831   | 1SS254         | SI DIODE       |
| D 832   | 1SS254         | SI DIODE       |
| D 833   | 1SS254         | SI DIODE       |
| D 834   | 1SS254         | SI DIODE       |
| D 835   | 1SS254         | SI DIODE       |
| D 836   | 1SS254         | SI DIODE       |
| D 837   | 1SS254         | SI DIODE       |
| D 838   | 1SS254         | SI DIODE       |
| D 839   | 1SS254         | SI DIODE       |
| D 846   | 1SS254         | SI DIODE       |
| △ D 901 | 30DF2-FC       | SI DIODE       |
| △ D 902 | 30DF2-FC       | SI DIODE       |
| △ D 903 | 30DF2-FC       | SI DIODE       |
| △ D 904 | 30DF2-FC       | SI DIODE       |
| D 905   | MTZ4.7C        | Z. DIODE (IM)  |
| D 906   | MTZ12A         | ZENER DIODE    |
| D 907   | MTZ5.6C        | ZENER DIODE    |
| D 908   | 11E1           | SI DIODE       |
| D 909   | 11E1           | SI DIODE       |
| D 910   | MTZ24C         | ZENER DIODE    |
| △ D 911 | 11E1           | SI DIODE       |
| △ D 912 | 11E1           | SI DIODE       |
| D 920   | MTZ7.5C        | ZENER DIODE    |
| D 921   | 1SS254         | SI DIODE       |
| D 922   | 1SS254         | SI DIODE       |
| IC701   | MB88515B-1389T | IC             |
| IC702   | TA8409S        | IC             |
| IC703   | TA8409S        | IC             |
| IC801   | AN6557F        | IC             |
| IC802   | CXA1331S       | DOLBY IC       |
| IC803   | AN6555         | IC             |
| IC804   | CXA1331S       | DOLBY IC       |
| IC805   | MC14066BCP     | IC             |
| IC806   | MC14053BCP     | IC             |
| IC808   | AN6555         | IC             |
| IC809   | LA2000S        | IC             |
| IC810   | UPC4570HA      | IC             |
| IC811   | UPC4570HA      | IC             |
| IC812   | LM324N         | IC             |
| IC813   | AN6555         | IC             |
| IC901   | XRA15218       | IC             |

| REF.  | PARTS NO.       | PARTS NAME       |
|-------|-----------------|------------------|
| J 701 | QMS3533-001     | JACK             |
| J 801 | VMJ3013-001     | PIN JACK         |
| J 802 | VMJ3013-001     | PIN JACK         |
| J 803 | VMJ3013-001     | PIN JACK         |
| L 101 | VQP0001-562ZS   | INDUCTOR         |
| L 106 | VQP0001-332ZS   | INDUCTOR         |
| L 107 | VQP0001-332ZS   | INDUCTOR         |
| L 111 | VQZ0065-001     | FILTER           |
| L 116 | VQH7001-027     | OSC COIL (BIAS)  |
| L 117 | VQP0001-562ZS   | INDUCTOR         |
| L 201 | VQP0001-562ZS   | INDUCTOR         |
| L 206 | VQP0001-332ZS   | INDUCTOR         |
| L 207 | VQP0001-332ZS   | INDUCTOR         |
| L 211 | VQZ0065-001     | FILTER           |
| L 216 | VQH7001-027     | OSC COIL (BIAS)  |
| L 217 | VQP0001-562ZS   | INDUCTOR         |
| L 806 | VQH1008-039     | OSC COIL (BIAS)  |
| Q 101 | 2SK170V (BL,V)  | FET              |
| Q 102 | 2SC2240 (GR,BL) | TRANSISTOR       |
| Q 103 | 2SC2240 (GR,BL) | TRANSISTOR       |
| Q 104 | 2SK170V (BL,V)  | FET              |
| Q 105 | 2SC2240 (GR,BL) | TRANSISTOR       |
| Q 106 | 2SK301 (R,S)    | TRANSISTOR       |
| Q 111 | DTC114ES        | DIGI. TRANSISTOR |
| Q 112 | DTC114ES        | DIGI. TRANSISTOR |
| Q 113 | DTC114ES        | DIGI. TRANSISTOR |
| Q 114 | 2SD1302 (S,T)   | TRANSISTOR       |
| Q 116 | 2SC1740S (RS)   | TRANSISTOR       |
| Q 117 | 2SC1740S (RS)   | TRANSISTOR       |
| Q 121 | 2SD1302 (S,T)   | TRANSISTOR       |
| Q 126 | 2SC1740S (RS)   | TRANSISTOR       |
| Q 131 | 2SC1740S (RS)   | TRANSISTOR       |
| Q 132 | 2SC1740S (RS)   | TRANSISTOR       |
| Q 133 | 2SC1740S (RS)   | TRANSISTOR       |
| Q 136 | 2SC2001 (L,K)   | TRANSISTOR       |
| Q 137 | 2SC2001 (L,K)   | TRANSISTOR       |
| Q 138 | DTC114ES        | DIGI. TRANSISTOR |
| Q 139 | 2SC2001 (L,K)   | TRANSISTOR       |
| Q 140 | DTC124ES        | TRANSISTOR       |
| Q 146 | 2SC1740S (RS)   | TRANSISTOR       |
| Q 147 | 2SC1740S (RS)   | TRANSISTOR       |
| Q 201 | 2SK170V (BL,V)  | FET              |
| Q 202 | 2SC2240 (GR,BL) | TRANSISTOR       |
| Q 203 | 2SC2240 (GR,BL) | TRANSISTOR       |
| Q 204 | 2SK170V (BL,V)  | FET              |
| Q 205 | 2SC2240 (GR,BL) | TRANSISTOR       |
| Q 206 | 2SK301 (R,S)    | TRANSISTOR       |
| Q 211 | DTC114ES        | DIGI. TRANSISTOR |
| Q 212 | DTC114ES        | DIGI. TRANSISTOR |
| Q 213 | DTC114ES        | DIGI. TRANSISTOR |
| Q 214 | 2SD1302 (S,T)   | TRANSISTOR       |
| Q 216 | 2SC1740S (RS)   | TRANSISTOR       |
| Q 217 | 2SC1740S (RS)   | TRANSISTOR       |
| Q 221 | 2SD1302 (S,T)   | TRANSISTOR       |
| Q 226 | 2SC1740S (RS)   | TRANSISTOR       |
| Q 231 | 2SC1740S (RS)   | TRANSISTOR       |
| Q 232 | 2SC1740S (RS)   | TRANSISTOR       |
| Q 233 | 2SC1740S (RS)   | TRANSISTOR       |
| Q 236 | 2SC2001 (L,K)   | TRANSISTOR       |
| Q 237 | 2SC2001 (L,K)   | TRANSISTOR       |
| Q 238 | DTC114ES        | DIGI. TRANSISTOR |
| Q 239 | 2SC2001 (L,K)   | TRANSISTOR       |
| Q 240 | DTC124ES        | TRANSISTOR       |
| Q 246 | 2SC1740S (RS)   | TRANSISTOR       |
| Q 247 | 2SC1740S (RS)   | TRANSISTOR       |
| Q 701 | 2SC1740S (RS)   | TRANSISTOR       |
| Q 702 | 2SC1740S (RS)   | TRANSISTOR       |
| Q 703 | 2SC1740S (RS)   | TRANSISTOR       |
| Q 704 | 2SA933 (R,S)    | TRANSISTOR       |
| Q 705 | DTC124ES        | TRANSISTOR       |
| Q 706 | DTC124ES        | TRANSISTOR       |
| Q 707 | DTC124ES        | TRANSISTOR       |
| Q 708 | DTC124ES        | TRANSISTOR       |
| Q 709 | DTC124ES        | TRANSISTOR       |
| Q 711 | DTA114ES        | DIGITAL-TR       |
| Q 712 | DTC124ES        | TRANSISTOR       |
| Q 713 | DTA124ES        | TRANSISTOR       |
| Q 714 | DTA124ES        | TRANSISTOR       |
| Q 715 | 2SC1740S (RS)   | TRANSISTOR       |
| Q 716 | 2SC1740S (RS)   | TRANSISTOR       |
| Q 717 | 2SC1740S (RS)   | TRANSISTOR       |
| Q 718 | 2SC1740S (RS)   | TRANSISTOR       |
| Q 719 | DTC124ES        | TRANSISTOR       |
| Q 801 | DTC124ES        | TRANSISTOR       |
| Q 806 | DTA124ES        | TRANSISTOR       |
| Q 808 | DTC124ES        | TRANSISTOR       |
| Q 811 | 2SA933 (R,S)    | TRANSISTOR       |
| Q 813 | DTC124ES        | TRANSISTOR       |
| Q 816 | 2SA933 (R,S)    | TRANSISTOR       |
| Q 817 | DTA124ES        | TRANSISTOR       |

| REF.  | PARTS NO.    | PARTS NAME      |
|-------|--------------|-----------------|
| Q 821 | DTC124ES     | TRANSISTOR      |
| Q 822 | DTC124ES     | TRANSISTOR      |
| Q 823 | DTA124ES     | TRANSISTOR      |
| Q 824 | DTC124ES     | TRANSISTOR      |
| Q 826 | 2SC2001(L,K) | TRANSISTOR      |
| Q 827 | 2SC2001(L,K) | TRANSISTOR      |
| Q 828 | 2SC2001(L,K) | TRANSISTOR      |
| Q 829 | DTC124ES     | TRANSISTOR      |
| Q 830 | 2SA933(R,S)  | TRANSISTOR      |
| Q 831 | DTC124ES     | TRANSISTOR      |
| Q 832 | DTC124ES     | TRANSISTOR      |
| Q 836 | DTC124ES     | TRANSISTOR      |
| Q 901 | 2SA1359(OY)  | TRANSISTOR      |
| Q 902 | 2SC1740S(RS) | TRANSISTOR      |
| Q 903 | 2SC3422(OY)  | TRANSISTOR      |
| Q 904 | 2SA933(R,S)  | TRANSISTOR      |
| Q 905 | 2SC3422(OY)  | TRANSISTOR      |
| Q 906 | 2SD2069(Q)   | TRANSISTOR      |
| Q 907 | 2SB1043(QR)  | TRANSISTOR      |
| R 101 | QRD161J-273  | CARBON RESISTOR |
| R 102 | QRD161J-470  | CARBON RESISTOR |
| R 103 | QRD161J-182  | CARBON RESISTOR |
| R 104 | QRD161J-822  | CARBON RESISTOR |
| R 105 | QRD161J-182  | CARBON RESISTOR |
| R 106 | QRD161J-102  | CARBON RESISTOR |
| R 107 | QRD161J-472  | CARBON RESISTOR |
| R 108 | QRD161J-101  | CARBON RESISTOR |
| R 109 | QRD161J-102  | CARBON RESISTOR |
| R 110 | QRD161J-331  | CARBON RESISTOR |
| R 111 | QRD161J-222  | CARBON RESISTOR |
| R 112 | QRD161J-102  | CARBON RESISTOR |
| R 113 | QRD161J-184  | CARBON RESISTOR |
| R 114 | QRD161J-302  | CARBON RESISTOR |
| R 115 | QRD161J-432Y | CARBON RESISTOR |
| R 116 | QRD161J-470  | CARBON RESISTOR |
| R 117 | QRD161J-105  | CARBON RESISTOR |
| R 118 | QRD161J-471  | CARBON RESISTOR |
| R 119 | QRD161J-102  | CARBON RESISTOR |
| R 120 | QRD161J-562  | CARBON RESISTOR |
| R 121 | QRD161J-562  | CARBON RESISTOR |
| R 126 | QRD161J-104  | CARBON RESISTOR |
| R 127 | QRD161J-243  | CARBON RESISTOR |
| R 128 | QRD161J-561  | CARBON RESISTOR |
| R 131 | QRD161J-272  | CARBON RESISTOR |
| R 132 | QRD161J-103  | CARBON RESISTOR |
| R 133 | QRD161J-153  | CARBON RESISTOR |
| R 134 | QRD161J-473  | CARBON RESISTOR |
| R 135 | QRD161J-152  | CARBON RESISTOR |
| R 136 | QRD161J-680  | CARBON RESISTOR |
| R 137 | QRD161J-102  | CARBON RESISTOR |
| R 138 | QRD161J-101  | CARBON RESISTOR |
| R 139 | QRD161J-432Y | CARBON RESISTOR |
| R 140 | QRD161J-152  | CARBON RESISTOR |
| R 141 | QRD161J-682  | CARBON RESISTOR |
| R 142 | QRD161J-272  | CARBON RESISTOR |
| R 143 | QRD161J-222  | CARBON RESISTOR |
| R 144 | QRD161J-682  | CARBON RESISTOR |
| R 145 | QRD161J-392  | CARBON RESISTOR |
| R 146 | QRD161J-105  | CARBON RESISTOR |
| R 151 | QRD161J-222  | CARBON RESISTOR |
| R 152 | QRD161J-105  | CARBON RESISTOR |
| R 153 | QRD161J-562  | CARBON RESISTOR |
| R 154 | QRD161J-104  | CARBON RESISTOR |
| R 155 | QRD161J-105  | CARBON RESISTOR |
| R 156 | QRD161J-243  | CARBON RESISTOR |
| R 157 | QRD161J-561  | CARBON RESISTOR |
| R 158 | QRD161J-104  | CARBON RESISTOR |
| R 161 | QRD161J-333  | CARBON RESISTOR |
| R 162 | QRD161J-333  | CARBON RESISTOR |
| R 163 | QRD161J-683  | CARBON RESISTOR |
| R 164 | QRD161J-473  | CARBON RESISTOR |
| R 165 | QRD161J-104  | CARBON RESISTOR |
| R 166 | QRD161J-332  | CARBON RESISTOR |
| R 167 | QRD161J-222  | CARBON RESISTOR |
| R 168 | QRD161J-222  | CARBON RESISTOR |
| R 169 | QRD161J-203  | CARBON RESISTOR |
| R 171 | QRD161J-473  | CARBON RESISTOR |
| R 172 | QRD161J-222  | CARBON RESISTOR |
| R 173 | QRD161J-224  | CARBON RESISTOR |
| R 186 | QRD161J-153  | CARBON RESISTOR |
| R 187 | QRD161J-103  | CARBON RESISTOR |
| R 188 | QRD161J-473  | CARBON RESISTOR |
| R 189 | QRD161J-108  | CARBON RESISTOR |
| R 190 | QRD161J-681  | CARBON RESISTOR |
| R 191 | QRD161J-220  | CARBON RESISTOR |
| R 192 | QRD161J-102  | CARBON RESISTOR |
| R 193 | QRD161J-223  | CARBON RESISTOR |
| R 194 | QRD161J-105  | CARBON RESISTOR |
| R 195 | QRD161J-222  | CARBON RESISTOR |
| R 196 | QRD161J-682  | CARBON RESISTOR |

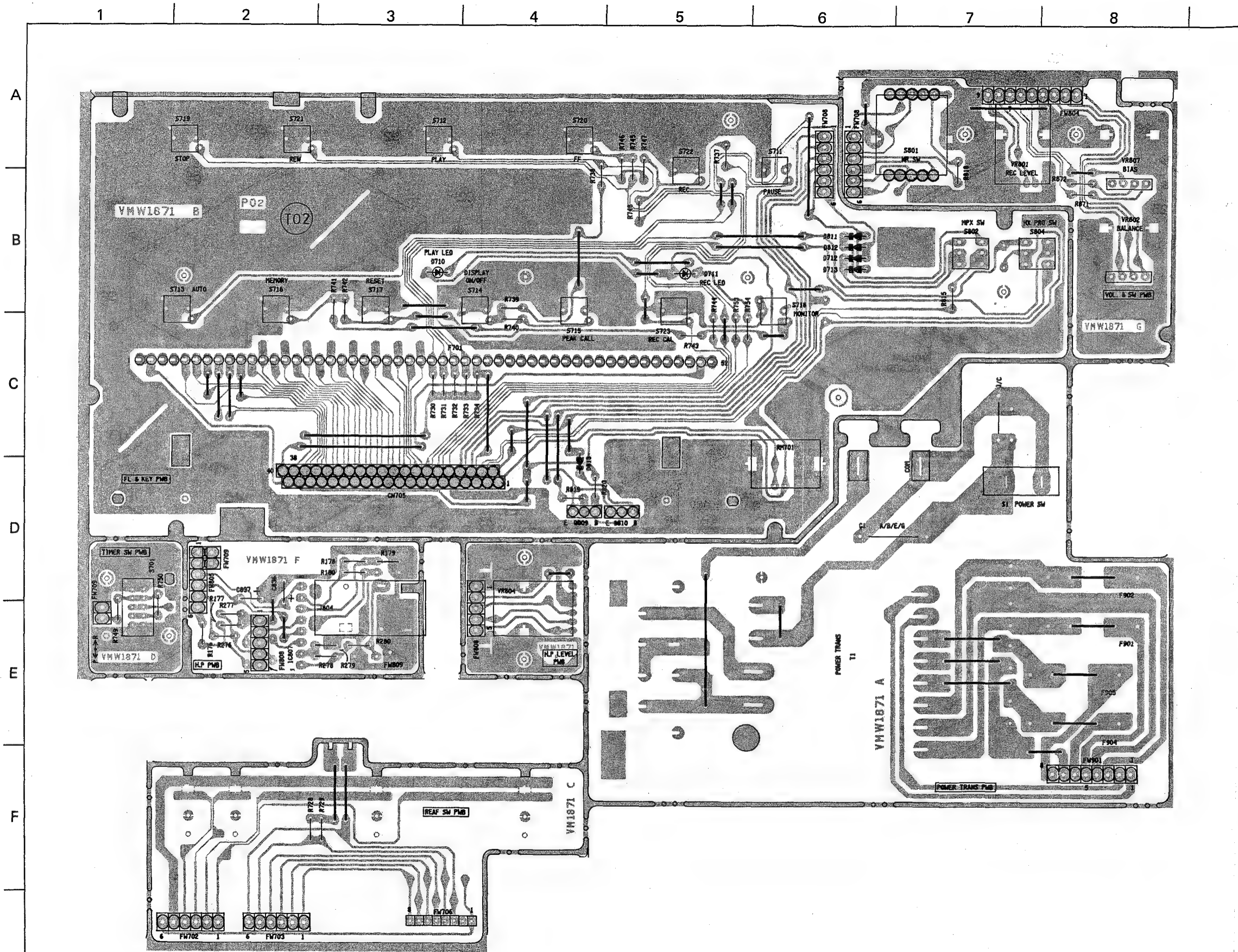
| REF.  | PARTS NO.    | PARTS NAME      |
|-------|--------------|-----------------|
| R 201 | QRD161J-273  | CARBON RESISTOR |
| R 202 | QRD161J-470  | CARBON RESISTOR |
| R 203 | QRD161J-182  | CARBON RESISTOR |
| R 204 | QRD161J-822  | CARBON RESISTOR |
| R 205 | QRD161J-182  | CARBON RESISTOR |
| R 206 | QRD161J-102  | CARBON RESISTOR |
| R 207 | QRD161J-472  | CARBON RESISTOR |
| R 208 | QRD161J-101  | CARBON RESISTOR |
| R 209 | QRD161J-102  | CARBON RESISTOR |
| R 210 | QRD161J-331  | CARBON RESISTOR |
| R 211 | QRD161J-222  | CARBON RESISTOR |
| R 212 | QRD161J-102  | CARBON RESISTOR |
| R 213 | QRD161J-184  | CARBON RESISTOR |
| R 214 | QRD161J-302  | CARBON RESISTOR |
| R 215 | QRD161J-432Y | CARBON RESISTOR |
| R 216 | QRD161J-470  | CARBON RESISTOR |
| R 217 | QRD161J-105  | CARBON RESISTOR |
| R 218 | QRD161J-471  | CARBON RESISTOR |
| R 219 | QRD161J-102  | CARBON RESISTOR |
| R 220 | QRD161J-562  | CARBON RESISTOR |
| R 221 | QRD161J-562  | CARBON RESISTOR |
| R 226 | QRD161J-104  | CARBON RESISTOR |
| R 227 | QRD161J-243  | CARBON RESISTOR |
| R 228 | QRD161J-561  | CARBON RESISTOR |
| R 231 | QRD161J-272  | CARBON RESISTOR |
| R 232 | QRD161J-103  | CARBON RESISTOR |
| R 233 | QRD161J-153  | CARBON RESISTOR |
| R 234 | QRD161J-473  | CARBON RESISTOR |
| R 235 | QRD161J-152  | CARBON RESISTOR |
| R 236 | QRD161J-680  | CARBON RESISTOR |
| R 237 | QRD161J-102  | CARBON RESISTOR |
| R 238 | QRD161J-101  | CARBON RESISTOR |
| R 239 | QRD161J-432Y | CARBON RESISTOR |
| R 240 | QRD161J-152  | CARBON RESISTOR |
| R 241 | QRD161J-682  | CARBON RESISTOR |
| R 242 | QRD161J-272  | CARBON RESISTOR |
| R 243 | QRD161J-222  | CARBON RESISTOR |
| R 244 | QRD161J-682  | CARBON RESISTOR |
| R 245 | QRD161J-392  | CARBON RESISTOR |
| R 246 | QRD161J-105  | CARBON RESISTOR |
| R 251 | QRD161J-222  | CARBON RESISTOR |
| R 252 | QRD161J-105  | CARBON RESISTOR |
| R 253 | QRD161J-562  | CARBON RESISTOR |
| R 254 | QRD161J-104  | CARBON RESISTOR |
| R 255 | QRD161J-105  | CARBON RESISTOR |
| R 256 | QRD161J-243  | CARBON RESISTOR |
| R 257 | QRD161J-561  | CARBON RESISTOR |
| R 258 | QRD161J-104  | CARBON RESISTOR |
| R 261 | QRD161J-333  | CARBON RESISTOR |
| R 262 | QRD161J-333  | CARBON RESISTOR |
| R 263 | QRD161J-683  | CARBON RESISTOR |
| R 264 | QRD161J-473  | CARBON RESISTOR |
| R 265 | QRD161J-104  | CARBON RESISTOR |
| R 266 | QRD161J-332  | CARBON RESISTOR |
| R 267 | QRD161J-222  | CARBON RESISTOR |
| R 268 | QRD161J-222  | CARBON RESISTOR |
| R 269 | QRD161J-203  | CARBON RESISTOR |
| R 271 | QRD161J-473  | CARBON RESISTOR |
| R 272 | QRD161J-222  | CARBON RESISTOR |
| R 273 | QRD161J-224  | CARBON RESISTOR |
| R 286 | QRD161J-153  | CARBON RESISTOR |
| R 287 | QRD161J-103  | CARBON RESISTOR |
| R 288 | QRD161J-473  | CARBON RESISTOR |
| R 289 | QRD161J-103  | CARBON RESISTOR |
| R 290 | QRD161J-681  | CARBON RESISTOR |
| R 291 | QRD161J-220  | CARBON RESISTOR |
| R 292 | QRD161J-102  | CARBON RESISTOR |
| R 293 | QRD161J-223  | CARBON RESISTOR |
| R 294 | QRD161J-105  | CARBON RESISTOR |
| R 295 | QRD161J-222  | CARBON RESISTOR |
| R 296 | QRD161J-682  | CARBON RESISTOR |
| R 301 | QRD161J-100  | CARBON RESISTOR |
| R 302 | QRD161J-394  | CARBON RESISTOR |
| R 303 | QRD161J-394  | CARBON RESISTOR |
| R 304 | QRD161J-101  | CARBON RESISTOR |
| R 305 | QRD161J-101  | CARBON RESISTOR |
| R 306 | QRD161J-154  | CARBON RESISTOR |
| R 307 | QRD161J-392  | CARBON RESISTOR |
| R 309 | QRD161J-683  | CARBON RESISTOR |
| R 310 | QRD161J-103  | CARBON RESISTOR |
| R 311 | QRD161J-103  | CARBON RESISTOR |
| R 312 | QRD161J-102  | CARBON RESISTOR |
| R 313 | QRD161J-104  | CARBON RESISTOR |
| R 314 | QRZ0077-4R7X | FUSE RESISTOR   |
| R 315 | QRD161J-102  | CARBON RESISTOR |
| R 316 | QRD161J-103  | CARBON RESISTOR |
| R 317 | QRD161J-103  | CARBON RESISTOR |
| R 318 | QRD161J-103  | CARBON RESISTOR |
| R 319 | QRD161J-395  | CARBON RESISTOR |
| R 320 | QRD161J-104  | CARBON RESISTOR |

| REF.  | PARTS NO.      | PARTS NAME      |
|-------|----------------|-----------------|
| R 326 | QRD161J-184    | CARBON RESISTOR |
| R 328 | QRD161J-102    | CARBON RESISTOR |
| R 329 | QRD161J-273    | CARBON RESISTOR |
| R 330 | QRD161J-242Y   | CARBON RESISTOR |
| R 331 | QRD161J-103    | CARBON RESISTOR |
| R 332 | QRD161J-222    | CARBON RESISTOR |
| R 333 | QRV141F-2001AY | CMF RESISTOR    |
| R 401 | QRD161J-100    | CARBON RESISTOR |
| R 402 | QRD161J-394    | CARBON RESISTOR |
| R 403 | QRD161J-394    | CARBON RESISTOR |
| R 404 | QRD161J-101    | CARBON RESISTOR |
| R 405 | QRD161J-101    | CARBON RESISTOR |
| R 406 | QRD161J-154    | CARBON RESISTOR |
| R 407 | QRD161J-392    | CARBON RESISTOR |
| R 409 | QRD161J-683    | CARBON RESISTOR |
| R 410 | QRD161J-103    | CARBON RESISTOR |
| R 411 | QRD161J-103    | CARBON RESISTOR |
| R 412 | QRD161J-102    | CARBON RESISTOR |
| R 413 | QRD161J-104    | CARBON RESISTOR |
| R 414 | QRZ0077-4R7X   | FUSE RESISTOR   |
| R 415 | QRD161J-102    | CARBON RESISTOR |
| R 416 | QRD161J-103    | CARBON RESISTOR |
| R 417 | QRD161J-103    | CARBON RESISTOR |
| R 418 | QRD161J-103    | CARBON RESISTOR |
| R 419 | QRD161J-395    | CARBON RESISTOR |
| R 420 | QRD161J-104    | CARBON RESISTOR |
| R 426 | QRD161J-184    | CARBON RESISTOR |
| R 428 | QRD161J-102    | CARBON RESISTOR |
| R 429 | QRD161J-273    | CARBON RESISTOR |
| R 430 | QRD161J-242Y   | CARBON RESISTOR |
| R 431 | QRD161J-103    | CARBON RESISTOR |
| R 432 | QRD161J-222    | CARBON RESISTOR |
| R 433 | QRV141F-2001AY | CMF RESISTOR    |
| R 701 | QRD161J-223    | CARBON RESISTOR |
| R 702 | QRD161J-104    | CARBON RESISTOR |
| R 703 | QRD161J-471    | CARBON RESISTOR |
| R 704 | QRD161J-103    | CARBON RESISTOR |
| R 705 | QRD161J-102    | CARBON RESISTOR |
| R 706 | QRD161J-272    | CARBON RESISTOR |
| R 707 | QRD161J-102    | CARBON RESISTOR |
| R 708 | QRD161J-102    | CARBON RESISTOR |
| R 709 | QRD161J-471    | CARBON RESISTOR |
| R 710 | QRD161J-223    | CARBON RESISTOR |
| R 711 | QRD161J-103    | CARBON RESISTOR |
| R 712 | QRD161J-223    | CARBON RESISTOR |
| R 713 | QRD161J-473    | CARBON RESISTOR |
| R 714 | QRD161J-221    | CARBON RESISTOR |
| R 715 | QRD161J-153    | CARBON RESISTOR |
| R 716 | QRD161J-222    | CARBON RESISTOR |
| R 718 | QRD161J-242Y   | CARBON RESISTOR |
| R 719 | QRD161J-122    | CARBON RESISTOR |
| R 720 | QRD161J-682    | CARBON RESISTOR |
| R 721 | QRD161J-221    | CARBON RESISTOR |
| R 722 | QRD161J-682    | CARBON RESISTOR |
| R 723 | QRD161J-682    | CARBON RESISTOR |
| R 724 | QRD161J-682    | CARBON RESISTOR |
| R 725 | QRD161J-103    | CARBON RESISTOR |
| R 726 | QRD161J-103    | CARBON RESISTOR |
| R 727 | QRD161J-103    | CARBON RESISTOR |
| R 755 | QRD161J-103    | CARBON RESISTOR |
| R 756 | QRD161J-223    | CARBON RESISTOR |
| R 757 | QRD161J-223    | CARBON RESISTOR |
| R 758 | QRD161J-223    | CARBON RESISTOR |
| R 759 | QRD161J-223    | CARBON RESISTOR |
| R 801 | QRD161J-103    | CARBON RESISTOR |
| R 802 | QRD161J-222    | CARBON RESISTOR |
| R 803 | QRD161J-223    | CARBON RESISTOR |
| R 806 | QRD161J-102    | CARBON RESISTOR |
| R 807 | QRD161J-273    | CARBON RESISTOR |
| R 808 | QRD161J-3R3    | CARBON RESISTOR |
| R 809 | QRD161J-3R3    | CARBON RESISTOR |
| R 811 | QRD161J-102    | CARBON RESISTOR |
| R 812 | QRD161J-273    | CARBON RESISTOR |
| R 813 | QRD161J-222    | CARBON RESISTOR |
| R 814 | QRD161J-103    | CARBON RESISTOR |
| R 816 | QRD161J-3R3    | CARBON RESISTOR |
| R 817 | QRD161J-3R3    | CARBON RESISTOR |
| R 821 | QRD161J-223    | CARBON RESISTOR |
| R 822 | QRD161J-103    | CARBON RESISTOR |
| R 823 | QRD161J-103    | CARBON RESISTOR |
| R 824 | QRD161J-103    | CARBON RESISTOR |
| R 825 | QRD161J-101    | CARBON RESISTOR |
| R 826 | QRD161J-104    | CARBON RESISTOR |
| R 827 | QRD161J-104    | CARBON RESISTOR |
| R 831 | QRD161J-4R7    | CARBON RESISTOR |
| R 832 | QRD161J-4R7    | CARBON RESISTOR |
| R 836 | QRD161J-472    | CARBON RESISTOR |
| R 837 | QRD161J-472    | CARBON RESISTOR |
| R 838 | QRD161J-473    | CARBON RESISTOR |
| R 839 | QRD161J-473    | CARBON RESISTOR |

| REF.  | PARTS NO.     | PARTS NAME      |
|-------|---------------|-----------------|
| R 840 | QRD161J-103   | CARBON RESISTOR |
| R 841 | QRD161J-223   | CARBON RESISTOR |
| R 842 | QRD161J-223   | CARBON RESISTOR |
| R 846 | QRD161J-273   | CARBON RESISTOR |
| R 847 | QRD161J-183   | CARBON RESISTOR |
| R 848 | QRD161J-224   | CARBON RESISTOR |
| R 851 | QRD161J-103   | CARBON RESISTOR |
| R 852 | QRD161J-222   | CARBON RESISTOR |
| R 853 | QRD161J-103   | CARBON RESISTOR |
| R 854 | QRD161J-103   | CARBON RESISTOR |
| R 855 | QRD161J-302   | CARBON RESISTOR |
| R 856 | QRD161J-223   | CARBON RESISTOR |
| R 857 | QRD161J-223   | CARBON RESISTOR |
| R 858 | QRD161J-182   | CARBON RESISTOR |
| R 859 | QRD161J-822   | CARBON RESISTOR |
| R 860 | QRD161J-104   | CARBON RESISTOR |
| R 861 | QRD161J-392   | CARBON RESISTOR |
| R 862 | QRD161J-562   | CARBON RESISTOR |
| R 863 | QRD161J-103   | CARBON RESISTOR |
| R 864 | QRD161J-103   | CARBON RESISTOR |
| R 865 | QRD161J-223   | CARBON RESISTOR |
| R 866 | QRD161J-332   | CARBON RESISTOR |
| R 868 | QRD161J-103   | CARBON RESISTOR |
| R 869 | QRD161J-153   | CARBON RESISTOR |
| R 873 | QRD161J-3R3   | CARBON RESISTOR |
| R 874 | QRD161J-3R3   | CARBON RESISTOR |
| R 875 | QRD161J-393   | CARBON RESISTOR |
| R 876 | QRD161J-393   | CARBON RESISTOR |
| R 877 | QRZ0077-100X  | F. RESISTOR     |
| R 878 | QRD161J-222   | CARBON RESISTOR |
| R 879 | QRD161J-333   | CARBON RESISTOR |
| R 880 | QRD161J-153   | CARBON RESISTOR |
| R 881 | QRD161J-471   | CARBON RESISTOR |
| R 882 | QRD161J-272   | CARBON RESISTOR |
| R 883 | QRD161J-752Y  | CARBON RESISTOR |
| R 884 | QRD161J-103   | CARBON RESISTOR |
| R 885 | QRD161J-103   | CARBON RESISTOR |
| R 886 | QRD161J-223   | CARBON RESISTOR |
| R 887 | QRD161J-183   | CARBON RESISTOR |
| R 888 | QRD161J-103   | CARBON RESISTOR |
| R 889 | QRD161J-621Y  | CARBON RESISTOR |
| R 890 | QRD161J-681   | CARBON RESISTOR |
| R 891 | QRD161J-221   | CARBON RESISTOR |
| R 893 | QRD161J-183   | CARBON RESISTOR |
| R 894 | QRD161J-103   | CARBON RESISTOR |
| R 897 | QRD161J-473   | CARBON RESISTOR |
| R 898 | QRD161J-223   | CARBON RESISTOR |
| R 899 | QRD161J-223   | CARBON RESISTOR |
| R 901 | QRZ0077-4R7X  | FUSE RESISTOR   |
| R 902 | QRZ0077-4R7X  | FUSE RESISTOR   |
| R 903 | QRD161J-273   | CARBON RESISTOR |
| R 904 | QRD161J-103   | CARBON RESISTOR |
| R 905 | QRD161J-242Y  | CARBON RESISTOR |
| R 906 | QRD161J-472   | CARBON RESISTOR |
| R 907 | QRD161J-472   | CARBON RESISTOR |
| R 908 | QRD161J-472   | CARBON RESISTOR |
| R 909 | QRD161J-102   | CARBON RESISTOR |
| R 910 | QRD161J-102   | CARBON RESISTOR |
| R 912 | QRD129J-221   | CARBON RESISTOR |
| R 913 | QRZ0077-100X  | F. RESISTOR     |
| R 914 | QRD161J-471   | CARBON RESISTOR |
| R 915 | QRD161J-471   | CARBON RESISTOR |
| R 916 | QRD121J-102   | CARBON RESISTOR |
| R 917 | QRZ0077-100X  | F. RESISTOR     |
| R 918 | QRD161J-102   | CARBON RESISTOR |
| R 919 | QRD161J-332   | CARBON RESISTOR |
| R 920 | QRD161J-103   | CARBON RESISTOR |
| R 921 | QRD161J-103   | CARBON RESISTOR |
| R 922 | QRD161J-103   | CARBON RESISTOR |
| R 923 | QRD161J-103   | CARBON RESISTOR |
| RN701 | QRB119J-223   | R NETWORK       |
| RN702 | QRB119J-223   | R NETWORK       |
| S 803 | QSTT102-V01   | PUSH SWITCH     |
| TP101 | VMZ0015-003   | POST PIN        |
| TP201 | VMZ0015-003   | POST PIN        |
| TP701 | VMZ0015-003   | POST PIN        |
| VR101 | QVZ3523-101AZ | V RESISTOR      |
| VR102 | QVZ3523-502AZ | V RESISTOR      |
| VR103 | QVZ3523-503AZ | V RESISTOR      |
| VR104 | QVZ3523-104AZ | V RESISTOR      |
| VR105 | QVZ3523-102AZ | V RESISTOR      |
| VR106 | QVZ3523-503AZ | V RESISTOR      |
| VR201 | QVZ3523-101AZ | V RESISTOR      |
| VR202 | QVZ3523-502AZ | V RESISTOR      |
| VR203 | QVZ3523-503AZ | V RESISTOR      |
| VR204 | QVZ3523-104AZ | V RESISTOR      |
| VR205 | QVZ3523-102AZ | V RESISTOR      |
| VR206 | QVZ3523-503AZ | V RESISTOR      |
| VR803 | QVDBA7A-015FA | V RESISTOR      |
| VR805 | QVZ3523-502AZ | V RESISTOR      |



• Other Board

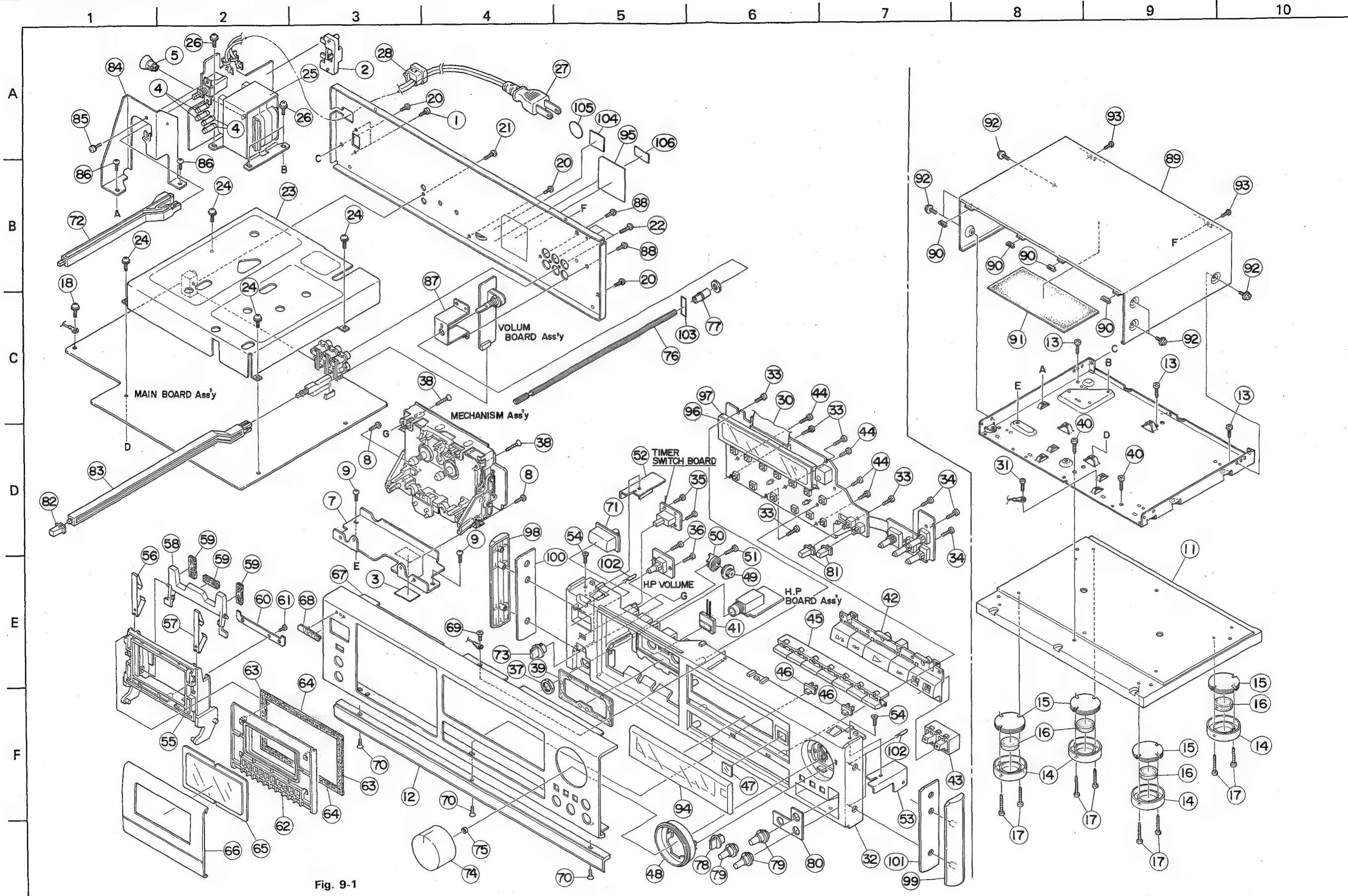


Other Board  
Parts List

BLOCK NO. 02

| REF.  | PARTS NO.      | PARTS NAME      |
|-------|----------------|-----------------|
| C 1   | QFZ9010-103    | M. CAPACITOR    |
| C 154 | QCF11HP-223    | C CAPACITOR     |
| C 254 | QCF11HP-223    | C CAPACITOR     |
| C 836 | QETC1AM-107ZN  | E CAPACITOR     |
| C 837 | QETC1AM-107ZN  | E CAPACITOR     |
| CN705 | VMC0163-R40    | CONNECTOR       |
| CN706 | VMC0075-008    | CONNECTOR       |
| D 710 | SLR-34MC70F124 | LED             |
| D 711 | SLR-34VC70F124 | LED             |
| D 712 | 1SS254         | SI DIODE        |
| D 713 | 1SS254         | SI DIODE        |
| D 811 | 1SS254         | SI DIODE        |
| D 812 | 1SS254         | SI DIODE        |
| D 813 | 1SS254         | SI DIODE        |
| F 701 | BG-902GK       | FL TUBE         |
| IC807 | XRA15218N      | IC              |
| J 804 | QMS6022-V01    | JACK            |
| Q 809 | DTC124ESTP     | TRANSISTOR      |
| Q 810 | DTC124ESTP     | TRANSISTOR      |
| R 176 | QRD161J-333    | CARBON RESISTOR |
| R 177 | QRD161J-153    | CARBON RESISTOR |
| R 178 | QRD161J-124    | CARBON RESISTOR |
| R 179 | QRD161J-752Y   | CARBON RESISTOR |
| R 180 | QRD161J-820    | CARBON RESISTOR |
| R 276 | QRD161J-333    | CARBON RESISTOR |
| R 277 | QRD161J-153    | CARBON RESISTOR |
| R 278 | QRD161J-124    | CARBON RESISTOR |
| R 279 | QRD161J-752Y   | CARBON RESISTOR |
| R 280 | QRD161J-820    | CARBON RESISTOR |
| R 728 | QRD161J-102    | CARBON RESISTOR |
| R 729 | QRD161J-102    | CARBON RESISTOR |
| R 730 | QRD161J-223    | CARBON RESISTOR |
| R 731 | QRD161J-223    | CARBON RESISTOR |
| R 732 | QRD161J-223    | CARBON RESISTOR |
| R 733 | QRD161J-223    | CARBON RESISTOR |
| R 734 | QRD161J-223    | CARBON RESISTOR |
| R 737 | QRD161J-102    | CARBON RESISTOR |
| R 738 | QRD161J-122    | CARBON RESISTOR |
| R 739 | QRD161J-182    | CARBON RESISTOR |
| R 740 | QRD161J-272    | CARBON RESISTOR |
| R 741 | QRD161J-472    | CARBON RESISTOR |
| R 742 | QRD161J-822    | CARBON RESISTOR |
| R 743 | QRD161J-273    | CARBON RESISTOR |
| R 744 | QRD161J-102    | CARBON RESISTOR |
| R 745 | QRD161J-122    | CARBON RESISTOR |
| R 746 | QRD161J-182    | CARBON RESISTOR |
| R 747 | QRD161J-272    | CARBON RESISTOR |
| R 748 | QRD161J-472    | CARBON RESISTOR |
| R 749 | QRD161J-822    | CARBON RESISTOR |
| R 750 | QRD161J-273    | CARBON RESISTOR |
| R 753 | QRD161J-271    | CARBON RESISTOR |
| R 754 | QRD161J-331    | CARBON RESISTOR |
| R 815 | QRD161J-102    | CARBON RESISTOR |
| R 818 | QRD161J-103    | CARBON RESISTOR |
| R 819 | QRD161J-561    | CARBON RESISTOR |
| R 820 | QRD161J-223    | CARBON RESISTOR |
| R 871 | QRD161J-182    | CARBON RESISTOR |
| R 872 | QRD161J-123    | CARBON RESISTOR |
| RM701 | SBX1610-02     | RM RECIVER      |
| S 1   | QSP1106-004    | PUSH SWITCH     |
| S 2   | QSS2325-119    | SLIDE SWITCH    |
| S 701 | QSS7A23-V05    | SLIDE SWITCH    |
| S 711 | QSP4H11-V14 Z  | TACT SWITCH     |
| S 712 | QSP4H11-V14 Z  | TACT SWITCH     |
| S 713 | QSP4H11-V14 Z  | TACT SWITCH     |
| S 714 | QSP4H11-V14 Z  | TACT SWITCH     |
| S 715 | QSP4H11-V14 Z  | TACT SWITCH     |
| S 716 | QSP4H11-V14 Z  | TACT SWITCH     |
| S 717 | QSP4H11-V14 Z  | TACT SWITCH     |
| S 718 | QSP4H11-V14 Z  | TACT SWITCH     |
| S 719 | QSP4H11-V14 Z  | TACT SWITCH     |
| S 720 | QSP4H11-V14 Z  | TACT SWITCH     |
| S 721 | QSP4H11-V14 Z  | TACT SWITCH     |
| S 722 | QSP4H11-V14 Z  | TACT SWITCH     |
| S 723 | QSP4H11-V14 Z  | TACT SWITCH     |
| S 801 | QSR2D23-V01    | ROTARY SWITCH   |
| S 802 | QSP4L11-V01    | PUSH SWITCH     |
| S 804 | QSP4L11-V01    | PUSH SWITCH     |
| VR801 | QVCB17A-V02 M  | V RESISTOR      |
| VR802 | QVCA47G-V01 M  | V RESISTOR      |
| VR804 | QVCB16A-V01 M  | V RESISTOR      |
| VR807 | QVCA47B-V01 M  | V RESISTOR      |

# 9 Exploded View of Enclosure Assembly



△ parts are safety assurance parts.  
When replacing those parts, make  
sure to use the specified one.

## ● Enclosure Component Parts List

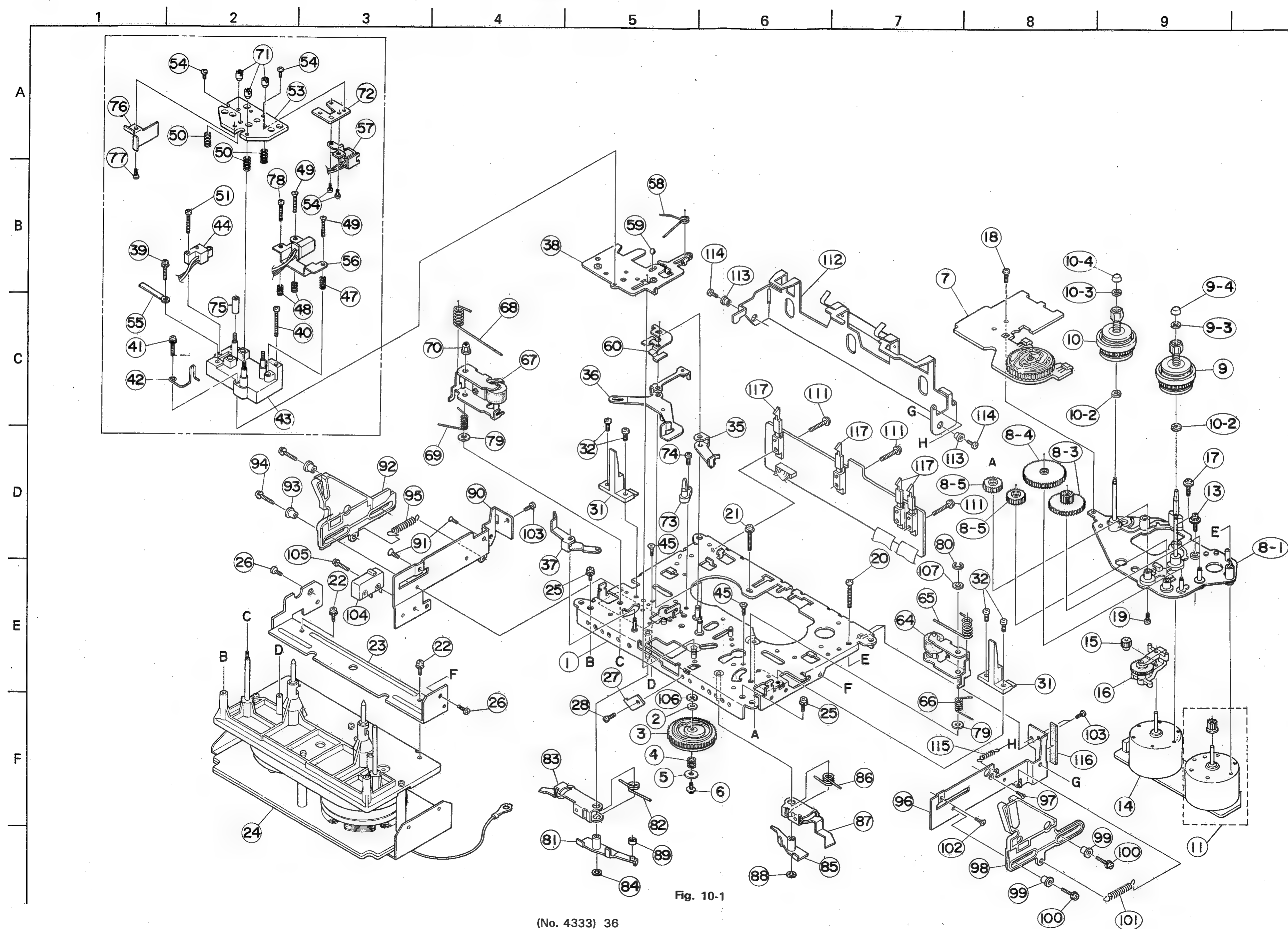
BLOCK NO. M1MM

| △ | REF.  | PARTS NO.       | PARTS NAME            | REMARKS           | QTY |
|---|-------|-----------------|-----------------------|-------------------|-----|
|   | 55~61 | ZCTDV1050K-CH   | CASSETTE HOLDER ASS'Y | SERVICE PARTS     |     |
|   | 62~66 | ZCTDV1050K-CLTN | CASSETTE LID ASS'Y    | SERVICE PARTS     |     |
|   | 1     | SBSF3008M       | SCREW                 | A/B/E/G(V-SELECT) | 2   |
|   | 2     | VKS5011-001     | VOLTAGE CONTACT       | A/B/E/G(V-SELECT) | 1   |
|   | 3     | VYSA1R4-084     | SPACER                | FOR HEAD WIRE     | 1   |
| △ | 4     | QMF51A2-R63     | FUSE A/E/G VER.       | F901/902/904/905C | 4   |
| △ |       | QMF51E2-R63BS   | FUSE B VERSION        | F901/902/904/905C | 4   |
|   | 5     | VYH7620-001     | CAP                   | A/B/E/G VETSION   | 1   |
|   | 7     | VKM3465-001     | MECHA BRACKET         |                   | 1   |
|   | 8     | SBST3006Z       | SCREW                 | FOR MECHA.BOTTOM  | 2   |
|   | 9     | SBST3006Z       | SCREW                 | FOR MECHA.BRACKET | 2   |
|   | 10    | VKL1334-002     | CHASSIS BASE          |                   | 1   |
|   | 11    | VJD1154-002     | ARK BASE              |                   | 1   |
|   | 12    | VJD2369-002     | ARK BASE PLATE        |                   | 1   |
|   | 13    | SDSA4014M       | SCREW                 | FOR ARK BASE      | 3   |
|   | 14    | E75538-005      | FOOT                  | FOR MOLDER        | 4   |
|   | 15    | VYTP432-001     | SPACER                | FOR FOOT          | 4   |
|   | 16    | VJF4003-013     | FOOT                  |                   | 4   |
|   | 17    | SDSA3010Z       | SCREW                 | FOR FOOT          | 8   |
|   | 18    | GBST3008Z       | SCREW                 | FOR MAIN BOARD    | 1   |
|   | 19    | VJC2415-004     | REAR PANEL            | A/B/E/G VERSION   | 1   |
|   |       | VJC2415-005     | REAR PANEL            | C/J VERSION       | 1   |
|   | 20    | SBST3006M       | SCREW                 | FOR REAR          | 3   |
|   | 21    | SBSF3008M       | SCREW                 | FOR DCS JACK      | 1   |
|   | 22    | SBSF3008M       | SCREW                 | FOR PIN JACK      | 3   |
|   | 23    | VKL2602-001     | SHEILD CASE           | FOR MAIN BOARD    | 1   |
|   | 24    | GBST3008Z       | SCREW                 | FOR SHILD CASE    | 4   |
| △ | 25    | VTP57A9-021B    | POWER TRANS           | T1 C/J VERSION    | 1   |
| △ |       | VTP57H9-011B    | POWER TRANS           | T1 A/E/G VERSION  | 1   |
| △ |       | VTP57H9-011BBS  | POWER TRANS           | T1 B VERSION      | 1   |
|   | 26    | GBST3006Z       | SCREW                 | FOR POWER TRANS   | 3   |
| △ | 27    | QMP1900-200     | POWER CORD            | C/J VERSION       | 1   |
| △ |       | QMP2560-200     | POWER CORD            | A VERSION         | 1   |
| △ |       | QMP3900-200     | POWER CORD            | E/G VERSION       | 1   |
| △ |       | QMP9017-008BS   | POWER CORD            | B VERSION         | 1   |
| △ | 28    | QHS3771-108     | CORD STOPPER          |                   | 1   |
| △ |       | QHS3771-108BS   | CORD STOPPER          | B VERSION ONLY    | 1   |
|   | 30    | VWH140-15C2C2-I | CARD WIRE             | FOR FL BOARD      | 1   |
|   | 31    | SBST3006Z       | SCREW                 | FOR LUG WIER      | 1   |
|   | 32    | VJC1965-006     | FRONT PANEL           | A/B/E/G VERSION   | 1   |
|   |       | VJC1965-007UL   | FRONT PANEL           | C/J VERSION       | 1   |
|   | 33    | SBSF3008Z       | SCREW                 | FOR FL BOARD      | 5   |
|   | 34    | SBSF3008Z       | SCREW                 | FOR VOLUME BOARD  | 3   |
|   | 35    | SBSF3008Z       | SCREW                 | FOR TIMER BOARD   | 2   |
|   | 36    | SBSF3008Z       | SCREW                 | FOR H.PHONE VOLUM | 2   |
|   | 37    | VKZ4150-001     | SPECIAL NUT           | FOR P.PHONE       | 1   |
|   | 38    | SSSF3010Z       | SCREW                 | FOR MECHANISM     | 2   |
|   | 39    | VJD5201-002     | PAD                   | FOR FRONT PANEL   | 1   |
|   | 40    | SDSA4014M       | SCREW                 | FOR FRONT PANEL   | 2   |
|   | 41    | LD-702YU        | L.E.D                 | FOR BACK LIGHT    | 1   |
|   | 42    | VXP3415-005     | MECHA BUTTON          |                   | 1   |
|   | 43    | VXP5018-002     | MECHA BUTTON          |                   | 1   |
|   | 44    | SBSF3008Z       | SCREW                 | FOR MECHA BUTTON  | 4   |
|   | 45    | VXP3416-002     | PUSH BUTTON           |                   | 1   |
|   | 46    | VJD5339-001     | LED LENS              | FOR PLAY/REC      | 2   |
|   | 47    | VJD5029-001     | RC FILTER             |                   | 1   |
|   | 48    | VJD5343-002     | INPUT ESCUTCHEO       |                   | 1   |
|   | 49    | VYH5601-002     | GEAR                  | FOR DAMPER        | 1   |
|   | 50    | VYH5602-002     | DAMPER HOLDER         |                   | 1   |
|   | 51    | SBSF3008Z       | SCREW                 | FOR DAMPER        | 1   |
|   | 52    | VKL7135-001     | FRONT BKT(L)          |                   | 1   |
|   | 53    | VKL7136-001     | FRONT BKT(R)          |                   | 1   |

| △ | REF. | PARTS NO.     | PARTS NAME      | REMARKS           | QTY |
|---|------|---------------|-----------------|-------------------|-----|
|   | 54   | SSSP3008Z     | SCREW           | FOR FRONT BRACKET | 2   |
|   | 55   | VJT2267-003   | CASSETTE HOLDER |                   | 1   |
|   | 56   | VKY4382-007   | CASSETTE SPRING | FOR LEFT          | 1   |
|   | 57   | VKY4382-008   | CASSETTE SPRING | FOR RIGHT         | 1   |
|   | 58   | VJT3314-004   | STABILIZER      |                   | 1   |
|   | 59   | VJD5341-001   | PAD             | FOR STABILIZER    | 3   |
|   | 60   | VKY4638-001   | SPRING          | FOR STABILIZER    | 1   |
|   | 61   | SDSF2605Z     | SCREW           | FOR SPRING        | 1   |
|   | 62   | VJT3312-002   | CASSETTE LID    |                   | 1   |
|   | 63   | VJD5341-002   | PAD             | FOR CASSETTE LID  | 2   |
|   | 64   | VJD5341-003   | PAD             | FOR CASSETTE LID  | 2   |
|   | 65   | VJD3870-001   | CASSETTE LENS   |                   | 1   |
|   | 66   | VJT3313-003   | LID PLATE       |                   | 1   |
|   | 67   | VJC1966-006   | FRONT PLATE     |                   | 1   |
|   | 68   | E72968-001    | JVC MARK        |                   | 1   |
|   | 69   | SSSF3010Z     | SCREW           | FOR FRONT PLATE   | 1   |
|   | 70   | SSSF3010Z     | SCREW           | FOR FRONT PLATE   | 3   |
|   | 71   | VXP5033-001   | PUSH BUTTON     | FOR POWER         | 1   |
|   | 72   | VKS3450-002   | REMOTE BAR      | FOR POWER SWITCH  | 1   |
|   | 73   | E304525-009   | VOLUME KNOB     | FOR HEADPHONE VOL | 1   |
|   | 74   | VXL3012-003   | INPUT KNOB      |                   | 1   |
|   | 75   | VKW4901-002   | KNOB SPRING     | FOR INPUT KNOB    | 1   |
|   | 76   | VKH5474-001   | VOLUME SHAFT    | FOR INPUT         | 1   |
|   | 77   | VKS4992-004   | VOLUME CONTACT  | FOR INPUT         | 1   |
|   | 78   | E304525-009   | VOLUME KNOB     | FOR DOLBY         | 1   |
|   | 79   | E406163-007   | KNOB            | CALIBRATION/BALAN | 3   |
|   | 80   | VJD5372-002   | VOL PLATE       | CALIBRATION/BALAN | 1   |
|   | 81   | VXP4814-002   | PUSH BUTTON     | HX PRO/MPX FILTER | 2   |
|   | 82   | VXP4814-002   | PUSH BUTTON     | CD DIRECTION      | 1   |
|   | 83   | VKS3505-001   | REMOTE BAR      | FOR CD DIRECTION  | 1   |
|   | 84   | VKM3466-001   | POWER BRACKET   |                   | 1   |
|   | 85   | LPSP3008Z     | SCREW           | FOR POWER SWITCH  | 1   |
|   | 86   | GBST3006Z     | SCREW           | FOR POWER BRACKET | 2   |
|   | 87   | VKL7009-001   | VOLUME BRACKET  |                   | 1   |
|   | 88   | SBST3006M     | SCREW           | FOR VOLUME BRACKE | 2   |
|   | 89   | VJC1980-002   | TOP COVER       |                   | 1   |
|   | 90   | VYSH105-034   | SPACER          | FOR TOP COVER     | 4   |
|   | 91   | VYTR435-001   | SPACER          | BOTTOM SIDE OF TO | 1   |
|   | 92   | VKZ4614-001   | SPECIAL SCREW   | FOR TOP COVER     | 6   |
|   | 93   | SBST3006M     | SCREW           | FOR TOP COVER     | 2   |
|   | 94   | VJK3534-003   | FINDER          |                   | 1   |
|   | 95   | VYN2295-002PA | NAME PLATE      | A VERSION         | 1   |
|   |      | VYN2295-002PA | NAME PLATE      | B VERSION         | 1   |
|   |      | VYN2295-002PA | NAME PLATE      | G VERSION         | 1   |
|   |      | VYN2295-004PA | NAME PLATE      | C VERSION         | 1   |
|   |      | VYN2295-005PA | NAME PLATE      | E VERSION         | 1   |
|   |      | VYN2295-006PA | NAME PLATE      | J VERSION         | 1   |
|   | 98   | VJD3915-001   | FITTING(L)      |                   | 1   |
|   | 99   | VJD3916-001   | FITTING(R)      |                   | 1   |
|   | 100  | VJD5387-001   | PLATE(L)        |                   | 1   |
|   | 101  | VJD5388-001   | PLATE(R)        |                   | 1   |
|   | 102  | VYH7599-001   | SNAP PIN        | FOR FITTING       | 4   |
|   | 103  | VYSA1R2-008   | SPACER          | FOR VOLUME SHAFT  | 1   |
|   | 104  | T44362-001    | CSA LABEL       | C VERSION         | 1   |
|   | 105  | VND4037-002   | F MARK          | G VERSION         | 1   |
|   | 106  | QZL1007-001   | BEAB LABEL      |                   | 1   |



# 10 Exploded View of Mechanism Assembly



## ● Mechanism Component Parts List

BLOCK NO. **M2MM**

| △ | REF. | PARTS NO.      | PARTS NAME      | REMARKS           | QTY |
|---|------|----------------|-----------------|-------------------|-----|
|   | 1    | VKL2449-00X    | CHAS.BASE ASS'Y |                   | 1   |
|   | 2    | VKZ4003-015    | FELT            | PINCH ROLLER CAM  | 1   |
|   | 3    | VKS2202-002    | P.ROLLER CAM    |                   | 1   |
|   | 4    | VKW3001-276    | C.SPRING        | PINCH ROLLER CAM  | 1   |
|   | 5    | VKL5116-005    | PLATE           | PINCH ROLLER CAM  | 1   |
|   | 6    | VKZ4340-002    | SCREW           | PINCH ROLLER CAM  | 1   |
|   | 7    | VKZ3136-00F    | CAM SWITCH ASSY |                   | 1   |
|   | 8-1  | VKL2303-003    | DISK BASE       | J24               | 1   |
|   | 8-3  | VKR3001-001    | GEAR(2)         |                   | 1   |
|   | 8-4  | VKR3001-002T   | GEAR 2          |                   | 1   |
|   | 8-5  | VKR3000-001    | GEAR(1)         |                   | 2   |
|   | 9    | VKR4598-00A    | REEL DISK ASS'Y |                   | 1   |
|   | 9-3  | VKR4170-001    | RING            |                   | 1   |
|   | 9-4  | VKS4131-001    | REEL STOPPER    |                   | 1   |
|   | 10   | VKR4598-00A    | REEL DISK ASS'Y |                   | 1   |
|   | 10-2 | VKZ4003-010    | FELT            |                   | 2   |
|   | 10-3 | VKR4170-001    | RING            |                   | 1   |
|   | 10-4 | VKS4131-001    | REEL STOPPER    |                   | 1   |
|   | 11   | MMN6F2RA8Z-SA1 | DC MOTOR ASS'Y  | FOR CAM           | 1   |
|   | 13   | DPSP2608Z      | SCREW           | FOR CAM MOTOR     | 1   |
|   | 14   | MMN-6F4RA38    | D.C.MOTOR       | REEL MOTOR        | 1   |
|   | 15   | VKR3000-003    | GEAR(1)         | FOR REEL MOTOR    | 1   |
|   | 16   | VKS4503-00D    | F/R ARM ASS'Y   |                   | 1   |
|   | 17   | SWSP2608Z      | SCREW           | FOR REEL MOTOR    | 1   |
|   | 18   | SDST2604Z      | SCREW           | FOR DISK BASE UNI | 1   |
|   | 19   | LPSP2608Z      | SCREW           | FOR DISK BASE UNI | 1   |
|   | 20   | SPSP2615Z      | SCREW           | FOR CAM MOTOR     | 1   |
|   | 21   | LPSP2614Z      | SCREW           | FOR REEL MOTOR    | 1   |
|   | 22   | LPSP2606Z      | SCREW           | FOR MOTOR BRACKET | 2   |
|   | 23   | VKL6562-002    | MOTOR BRACKET   |                   | 1   |
|   | 24   | SS11BB         | DD MOTOR ASS'Y  |                   | 1   |
|   | 25   | LPSP2606Z      | SCREW           | FOR DD MOTOR      | 2   |
|   | 26   | SDST2605Z      | SCREW           | FOR MOTOR BRACKET | 2   |
|   | 27   | VKL5398-001    | BRACKET         |                   | 1   |
|   | 28   | SSST2604Z      | SCREW           | FOR BRACKET       | 1   |
|   | 31   | VKS4901-002    | CASSETTE GUIDE  | J24               | 2   |
|   | 32   | SDST2605Z      | SCREW           | FOR CASSETTE GUID | 4   |
|   | 35   | VKL5316-00G    | H.BASE ARM ASSY |                   | 1   |
|   | 36   | VKL3879-00B    | P.R.LEVER(1)    |                   | 1   |
|   | 37   | VKL6190-00C    | P.R.LEVER(2)    |                   | 1   |
|   | 38   | VKM3192-002    | HEAD BASE       |                   | 1   |
|   | 39   | LPSP2010N      | SCREW           | FOR WIRE HOLDER   | 1   |
|   | 40   | SPSP2016N      | SCREW           | FOR HEAD BASE     | 1   |
|   | 41   | LPSP2012Z      | SCREW           | HOR WIRE HOLDER   | 1   |
|   | 42   | VKZ4437-001    | WIRE HOLDER     |                   | 1   |
|   | 43   | VKZ3137-00C    | H.BASE ASS'Y    |                   | 1   |
|   | 44   | VGH0212-121    | ERASE HEAD      |                   | 1   |
|   | 45   | SSSP2608Z      | SCREW           | FOR DD MOTOR      | 2   |
|   | 47   | VKW3001-067    | SPRING          | FOR REC HEAD      | 1   |
|   | 48   | VKW3001-099    | SPRING          | FOR REC HEAD      | 2   |
|   | 49   | VKZ4463-00B    | SPECIAL SCREW   | FOR REC HEAD      | 2   |
|   | 50   | VKW3001-223    | SPRING          | FOR PB HEAD       | 3   |
|   | 51   | LPSP2012N      | SCREW           | FOR E HEAD        | 1   |
|   | 53   | VKL6192-005    | P.B. HEAD BASE  |                   | 1   |
|   | 54   | VKZ4194-001    | S.SCREW         | FOR PB HEAD       | 4   |
|   | 55   | VKZ4001-013    | WIRE HOLDER     | FOR HEAD WIER     | 1   |

| △ | REF. | PARTS NO.   | PARTS NAME      | REMARKS           | QTY |
|---|------|-------------|-----------------|-------------------|-----|
|   | 56   | VGH0423-607 | REC HEAD ASS'Y  |                   | 1   |
|   | 57   | VGH0424-629 | P.B. HEAD ASS'Y |                   | 1   |
|   | 58   | VKW4467-005 | TORSION SPRING  | HOR HEAD BASE     | 1   |
|   | 59   | T41615-004  | STEEL BALL      |                   | 1   |
|   | 60   | VKY4559-002 | SPRING PLATE    |                   | 1   |
|   | 64   | VKP4210-00A | P.ROLLER ASS'Y  | RIGHT             | 1   |
|   | 65   | VKW3006-056 | TORSION SPRING  | FOR P.ROLLER      | 1   |
|   | 66   | VKW3006-057 | TORSION SPRING  | FOR RETURN        | 1   |
|   | 67   | VKP4129-00K | P.ROLLER ASS'Y  | LEFT              | 1   |
|   | 68   | VKW4735-003 | TORSION SPRING  | FOR PINCH ROLLER  | 1   |
|   | 69   | VKW3006-060 | TORSION SPRING  | FOR PINCH ROLLER  | 1   |
|   | 70   | VKS4513-001 | ADJUST SCREW    | FOR PINCH ROLLER  | 1   |
|   | 71   | VKH5137-001 | ADJUST SCREW    | FOR PB HEAD       | 3   |
|   | 72   | VKL6422-001 | HEAD BASE       | FOR PB HEAD       | 1   |
|   | 73   | VKS4512-003 | GUID POST       |                   | 1   |
|   | 74   | SDST2605Z   | SCREW           | FOR GUIDE POST    | 1   |
|   | 75   | QXTS400-010 | SHURINK TUBE    |                   | 1   |
|   | 76   | VKL6581-001 | SHIELD PLATE    | FOR PB HEAD       | 1   |
|   | 77   | SPSK2025M   | MINI SCREW      | FOR SHIELD PLATE  | 1   |
|   | 78   | VKZ4464-00B | SPECIAL SCREW   | FOR REC HEAD      | 1   |
|   | 79   | WNS3000N    | WASHER          | FOR PINCH ROLLER  | 1   |
|   |      | WNS3000N    | WASHER          | FOR PINCH ROLLER  | 1   |
|   | 80   | REE2500     | E.RING          | FOR PINCH ROLLER  | 1   |
|   | 81   | VKL6830-00E | LEVER L1 ASS,Y  |                   | 1   |
|   | 82   | VKW4872-001 | T.SPRING        | FOR LEVER L1      | 1   |
|   | 83   | VKL6832-001 | LEVER L2        |                   | 1   |
|   | 84   | WDL266025-4 | SLIT WASHER     | FOR LEVER L1      | 1   |
|   | 85   | VKL6843-00C | LEVER R1 ASS,Y  |                   | 1   |
|   | 86   | VKW4873-001 | T.SPRING        |                   | 1   |
|   | 87   | VKL6845-001 | LEVER R2        |                   | 1   |
|   | 88   | WDL266025-4 | SLIT WASHER     | FOR LEVER R1      | 1   |
|   | 89   | VKH3000-147 | COLLAR          | FOR LEVER L1      | 1   |
|   | 90   | VKM3336-003 | SIDE BRACKET L  |                   | 1   |
|   | 91   | VKZ4128-002 | S.SCREW         | FOR SIDE BRACKET  | 2   |
|   | 92   | VKS2211-001 | SLIDE LEVER L   |                   | 1   |
|   | 93   | VKH3001-085 | F.COLLAR        | FOR SLIDE LEVER   | 2   |
|   | 94   | LPSP2008Z   | SCREW           | FOR SLIDE LEVER   | 2   |
|   | 95   | VKW3002-272 | SPRING          | FOR SLIDE LEVER   | 1   |
|   | 96   | VKM3337-003 | SIDE BRACKET R  |                   | 1   |
|   | 97   | VKZ4128-002 | S.SCREW         |                   | 1   |
|   | 98   | VKS2212-002 | SLIDE LEVER R   |                   | 1   |
|   | 99   | VKH3001-085 | F.COLLAR        | FOR SLIDE LEVER   | 2   |
|   | 100  | LPSP2008Z   | SCREW           | FOR SLIDE LEVER   | 2   |
|   | 101  | VKW3002-268 | SPRING          | FOR SLIDE LEVER   | 1   |
|   | 102  | SSST2605Z   | SCREW           | FOR SIDE BRACKET  | 1   |
|   | 103  | SDST2605Z   | SCREW           | FOR SIDE BRACKET  | 3   |
|   | 104  | VSH1162-002 | SWITCH          | FOR DOOR OPEN DET | 1   |
|   | 105  | VKZ4231-006 | SCREW           | FOR SWITCH        | 1   |
|   | 106  | WFM467550   | WASHER          | PINCH ROLLER CAM  | 1   |
|   | 107  | WFM316025   | S.WASHER        | FOR PINCH ROLLER  | 1   |
|   | 111  | VKZ4345-004 | SPECIAL SCREW   | FOR LEAF SWITCH P | 3   |
|   | 112  | VKM3359-00D | SW ARM ASS'Y    |                   | 1   |
|   | 113  | VKH5380-001 | COLLAR          | FOR SWITCH ARM    | 2   |
|   | 114  | SDSP2605Z   | SCREW           | FOR SWITCH ARM    | 2   |
|   | 115  | VKW3002-269 | T.SPRING        | FOR SWITCH ARM    | 1   |
|   | 116  | VYSS101-032 | SPACER          | FOR MECHA.TOP SID | 1   |
|   | 117  | VSH1140-003 | LEAF SWITCH     | S702/S703/S704/S7 | 4   |
|   | 801  | VKL2303-003 | DISK BASE       | J24               | 1   |
|   | 803  | VKR3001-001 | GEAR(2)         |                   | 1   |

## 11 Packing

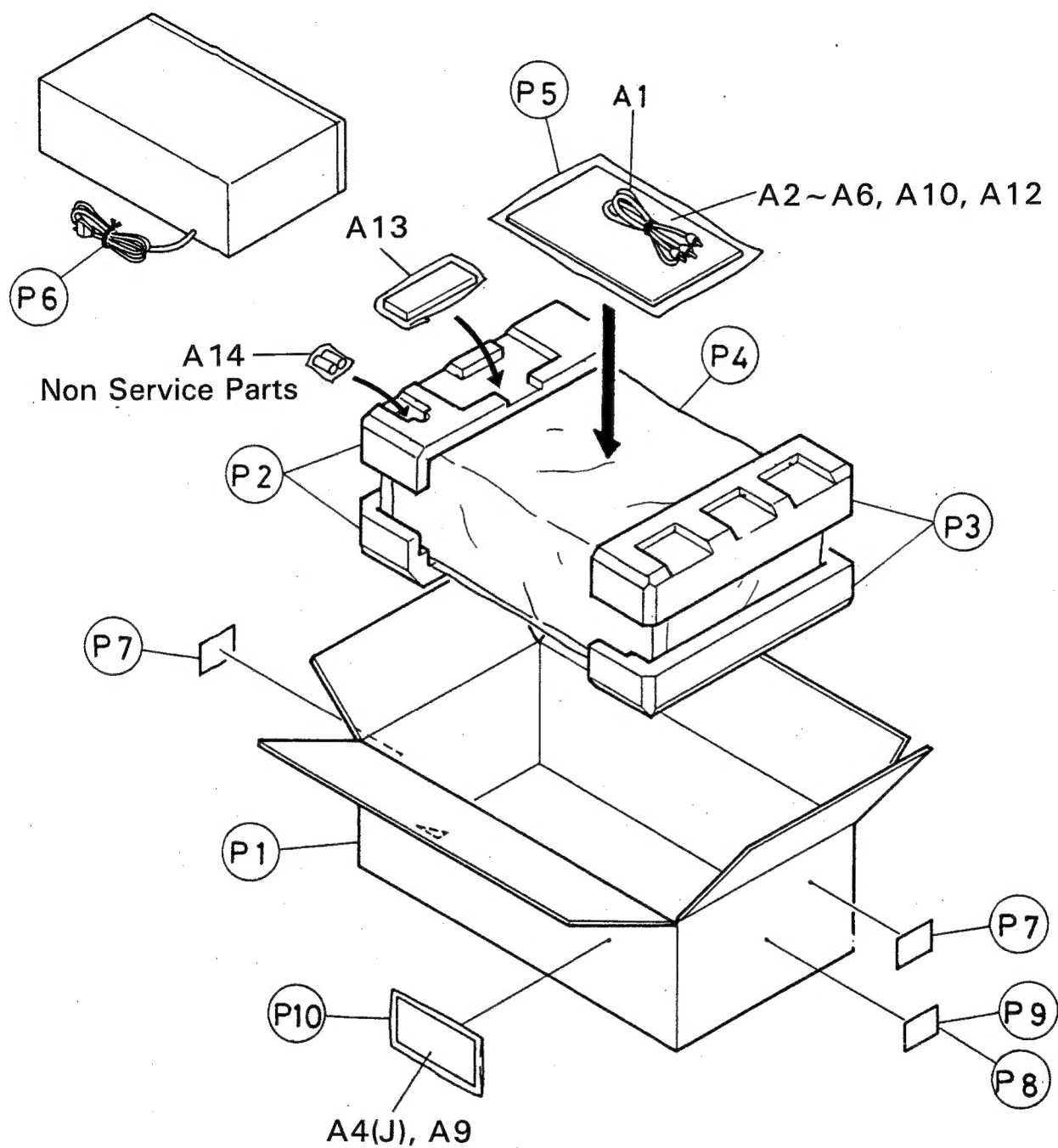


Fig. 11-1



## ● Packing Parts List

BLOCK NO. M3MM

| △ | REF. | PARTS NO.     | PARTS NAME      | REMARKS           | QTY |
|---|------|---------------|-----------------|-------------------|-----|
| A | 1    | VMP0039-00D   | PIN CORD        |                   | 1   |
| A | 2    | VNN2295-471   | INST BOOK       | E VERSION         | 1   |
|   |      | VNN2295-661   | INST BOOK       |                   | 1   |
| A | 3    | TCN-3379      | TAPE PAMPHLET   | B/E/G VERSION     | 1   |
|   |      | TCP-3428      | TAPE PAMPHLET   | A VERSION         | 1   |
| A | 4    | TCU-3492      | TAPE PAMPHLET   | C/J VERSION       | 1   |
|   |      | BT-20025K     | WARRANTY CARD   | C VERSION         | 1   |
|   |      | BT-20047F     | WARRANTY CARD   | J VERSION         | 1   |
|   |      | BT-20060      | WARRANTY CARD   | B VERSION         | 1   |
|   |      | BT-20066A     | WARRANTY CARD   | B VERSION         | 1   |
|   |      | BT-20117      | WARRANTY CARD   | G VERSION FOR JED | 1   |
|   |      | BT-20122      | WARRANTY CARD   | A VERSION         | 1   |
|   |      | BT-20122-1    | WARRANTY CARD   | A VERSION         | 1   |
| A | 5    | EWP805-001E   | REMOTE WIRE     |                   | 1   |
| A | 6    | BT-20044G     | SAFETY GUIDE    | J VERSION         | 1   |
| A | 9    | BT-20108A     | SERVICE NETWORK | J VERSION         | 1   |
| A | 10   | BT-20071A     | JVC CENTER LIST | C VERSION         | 1   |
| A | 12   | E43486-340A   | SAFETY I.SHEET  | B VERSION         | 1   |
| A | 13   | RRT4001-9703R | REMOCON ASS'Y   |                   | 1   |
| A | 14   | UM4NV-2P      | BATTERY         | FOR REMOCON(NON S | 2   |
| P | 1    | VPC2295-002   | CARTON          |                   | 1   |
| P | 2    | VPH2405-001   | CUSHION(L)      |                   | 1   |
| P | 3    | VPH2406-001   | CUSHION(R)      |                   | 1   |
| P | 4    | E300196-031B  | ENVELOPE        | FOR UNIT          | 1   |
| P | 5    | VPE3005-007   | POLY BAG        | FOR INSTRUCTION   | 1   |
| P | 6    | Q04141H       | WIRE CLAMP      | FOR POWER CORD    | 1   |
| P | 7    | VND3044-001   | SIRIAL TICKET   | A VERSION         | 1   |
|   |      | VND3044-002   | SERIAL TICKET   | J VERSION         | 2   |
|   |      | VND3044-003   | SERIAL TICKET   | E VERSION         | 1   |
|   |      | VND3044-004   | SIRIAL TICKET   | B VERSION         | 1   |
|   |      | VND3044-005   | SIRIAL TICKET   | G VERSION         | 1   |
|   |      | VND3044-006   | SERIAL TICKET   | C VERSION         | 2   |
| P | 8    | VND3069-031   | EAN CODE LABEL  | A/B/E/G VERSION   | 1   |
| P | 9    | VND3065-033   | UPC CODE LABEL  | C/J VERSION       | 1   |
| P | 10   | E66416-003    | ENVELOPE        | J VERSION-WARRANT | 1   |

# JVC

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